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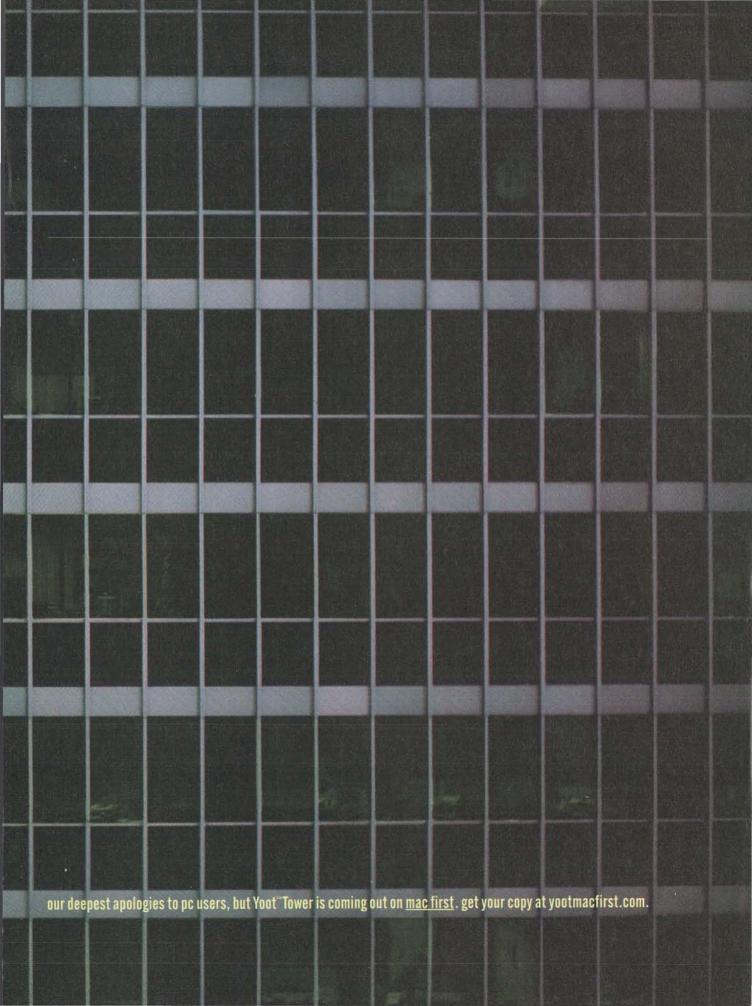
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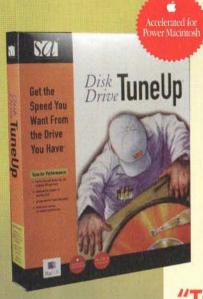


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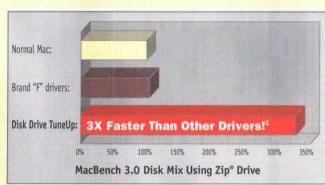


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1 Ziff Davis, MacBench® 3.0 scores using as Iomega® Zip' drive on an Apple Macinitosh Performa 6400/180 numing Mac OS 8.0 with 24 MB RAM and VM on. All products used in this test were shipping versions available to the general public. This test sind its results were not verified by Ziff-Davis, Individual gain deepend on the type of mediu need, exhibite numericer established and systems that

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IN LESS THAN 10 minutes, I burned off six copies of SimpleText.

DECEMBER 1998

highlights



30 Days to the Perfect Mac

If the holiday season has you packing on the megabytes and bulging at the hard drive, you'll want to check out our 30-day guide to a leaner, meaner Mac. Shave off all that unsightly system fat in just 10 minutes or less a day! BY MARK SIMMONS

Holiday Games Spectacular 3

From fantasy females to rampaging rednecks, we take a sneak peak at 22 of this season's hottest Mac hits and let you know which games are worth the hype. We know-you'll want them all anyway. BY JENNIFER HO! HO! HO!

52 The Best of OS 8.5

Upgrade or upchuck? Ah, that's the question. We give you five good reasons to make the upgrade as we test-drive OS 8.5 and fill you in on its coolest new tools.

BY DAVID REYNOLDS

low to

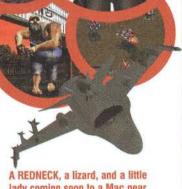
How to Build a Shoot-'Em-Up Game in Flash 3

For those gamers who are sick of slinging guns and running down ammo, we offer you the chance to stand on the other side of the firing line-with our 10-step guide to making your own gory games in Macromedia's Flash 3. BY GLENN THOMAS

How to Make Your Mac a Two-Headed Monster

Expand your desktop horizon by hooking up multiple monitors to your Mac. Just follow our simple, nonalcoholic instructions and you'll be seeing double before you know it.

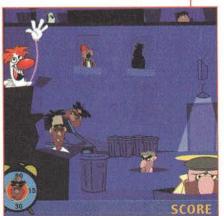
BY OWEN W. LINZMAYER



lady coming soon to a Mac near you. Rating: DD.



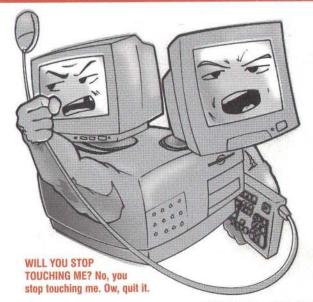
DEJA VU-OR YET ANOTHER ARTICLE on Mac OS 8.5? This one's different. Really.



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MORE PEOPLE LIVE IN THIS ALLEY than in all of Antarctica. Believe it...or not.



SQUINT YOUR EYES and you should see a hidden sailboat.



every mor

12 Editor's Note

Sure, working here sounds like fun, but would you really want to do it? Plus, Dave intercepts Santa's email and finds out who's been naughty and nice.

14 Letters

We keep printing magazines, you keep writing letters—it's a match made in heaven.

20 Get Info

Today the iMac, tomorrow the world—Apple aims to go global. Also, we scout out iMac peripherals, tempt you with OS 8.5 tips and tricks, and dare you to reveal your feminine appeal.

28 Cravings

You have an itch, and it's not that uncomfortable rash you saw a doctor about last month. Ewwwww! You're itching to own these products, and so are we!

58 Reviews

We tried out, toyed with, and tested 14 Mac products to help you decide whether to break the bank and buy the store or save your cash for later. Get the goods on everything from killer games, to graphics tablets, to the latest in flat-panel displays.

86 PowerPlay

Myth maps. Everyone wants Myth maps. We show you how to make your own, so don't say we never gave you anything.

98 Ask Us

No, we don't date readers, so give it up already. Now that we've cleared that up, we can offer answers to more-important questions concerning PPP control panel time warps, free email, modem sharing, virtual memory, and those oh-so-speedy scroll bars.

28 Shut Down

We think we're funny, but we bet Quark doesn't. Do you? Mwaha ha ha ha.

HEY EVERY-BODY, listen up. Billy has something to say. Turn to page 128 and find out what.



TURN ON THE LAVA LAMP, fire up the Floyd, and feel the growth.



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Ralph Berger eMediaweekly, August 1998 "Photo-Paint 8: Artful debut"

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Window Shopping



Hey, Mac addicts! Come on down! You're the next contestant on HeadRush! This warp-speed. high-octane trivia game takes Generation X pop-culture questions and pitches them out with complete, unbridled insanity. From cereal and cartoons to punk rock wear and Hanson (?!). buzz in the correct answer before your opponents or suffer the consequences (perhaps your demise). Listen up, contestants-today's categories today are kielbasa gives me gas...playing football with the undead...breakfast of wimps...

Web-o-Tron Layout-o-Matic 1.0

Here's a simple and easy-to-use design tool that will help take the guesswork out of creating HTML pages for your Web site. The well-designed interface lets you construct pages by choosing from an assortment of templates you drag and drop onto the construction window. Choose from layouts that incorporate pictures, text, buttons, or a combination of these, and view your layout within your browser of choice. Great for people who want to construct a site fast or are just too lazy to figure out other HTML-authoring tools.

Quest for Glory V: Dragon Fire Demo

Hero or mere simpleton? How do you measure up as you set foot in the town of Silmaria in this chilling action-adventure RPG game? Beautiful 3D scrolling graphics envelop your customized character as you traverse the land, meet the people, cast spells, acquire wealth, fall in love, and bash a few monsters along the way. Plus, the story line changes depending on the character and attributes you select and the actions you take. So sharpen up that sword (and your wits) and prepare for battle!

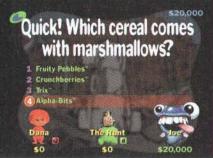
QuarkXPress 4.0.2 Demo

So you're sitting there wondering how we put together this glorious magazine we call MacAddict. Aside from the glue that holds the pages together, we lay everything out using

QuarkXPress. This page layout design program is the industry standard for designers and publishers. It allows us to integrate type, layout, graphics, and color using professional illustration tools, word processing, and prepress functions, all in one program. Here's your chance to create your own 'zine.



WITNESS OUR OWN SPECIAL **CELEBRATION** of the holidays in this month's staff video. A Not PC Christmas, PCs roasting on an open fire...



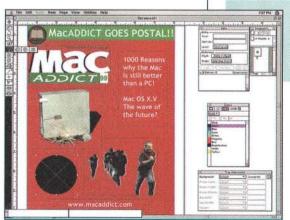
I'M SO DARN SMART, I think my head's gonna explode!



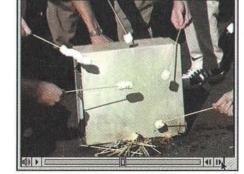
IT SLICES, it dices, it juliennes!



I'LL TAKE ONE POISON ARROW, a crystal dagger, and a nonfat latte...to go.



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2 Roads movie, 3 Steps movie, Apple Guide 2.1.1, AppleShare IP First Aid, AppleWorks 5.0 demo, ColorSync 2.5.1, iMac (v.34 only) Modern Script, iMac CD Update 1.0, iMac Update 1.0, PowerMac 4400 Update, QuickTime 3.0.2, ResEdit 2.1.3, Traffic movie, Un PC movie

Audio

D-SoundPro 3.5.1. EarSaver 1.0 sampler. MacAmp 1.0b6, MPecker Drop Decoder 1.3, VSamp 2.3.0 demo, Xx 1.01 demo

Communication

Anarchie Pro 3.0, Black Night 1.0.7, Communicator 4.5PR2 beta, DoorStop 1.0 evaluation, Email Effects 1.5.5, Email fp3, eMerge 1.5.4 demo, Internet Config 2.0, Mac CallerID 1.20, Midnight Download 1.1, Midnight Express 1.1, Netscape Communicator 4.0.6. Newstand 2.0 demo. Rapscallion 2.0.1 demo, SnapMail 2.5 demo

Design & Graphics

A Smaller GIF 1.0.8, Acrobat Reader 3.0.1, BackgroundWarper 1.1, ColorPicker App 1.0, Contours 1.3, Crosshatching 1.11, Crystal-Designer 6.0.3 demo, DesignWorkshop Lite 1.8.3 demo, dincFonts, Flash 3 demo, Font Gander Pro 1.3.1b3, FontAgent 2.7 demo. Gifogifogif 1.24, GraphicConverter 3.4, Graphics Calculator 2.5, MacMake Web-Collection, MacMake WebCollection 9, Mac-Surfshop Desktopz, Peguimin J 1.1.2, Pen-Tools 3, PictWave 0.5.1, ProJPEG 3.1, QuarkXPress 4.0.2 demo, Snap 'n' Clip 1.1, Web-o-Tron Layout-o-Matic 1.0, Window Monkey Patterns, Zang-O-Fonts 1

Development

Akua Sweets 1.25, Folder Action Setup 1.0 trial, Lasso CGI 2.5.1 demo, Lasso Plug-in 2.5.1 demo, PocketC 2.11, Realbasic F9 demo, Resource Extractor 1.0, Teach Pro 1.0.1 trial, WebSiphon 1.5.1 demo

Fun & Games

4Corners Solitaire 1.4, Al Morale 2.0 demo, Alan's Euchre, An Al Called Wanda, Apeiron plus Bonus Pack 1.0.2, Ares 1.0.1 demo, Backstage demo, Blood Bath 1.94 demo, Bob the Fish, Brick Attack, BricklesDeluxe, CheckerWarz, Crystal Rock 1.2, Darts, Dragon Grabber 1.1, Elfin Clash 1.1, EV

Override plus Bonus Pack, Food Chain trial. HeadRush demo, KCD Creations Games, MacTaipei, Ocean Bound 1.1, Quest for Glory V demo, Quiver 1.03, Sapiens 2.2, Snit 2, Starbound II .98, Starbound II .98S, Sumo 1.0.2, TakeAway 1.1 demo, TaskMaker 2.2.4, The Icthian Project Prelude, TicTacToe4D 1.1, Tomb of TaskMaker, Tomb Raider II demo, Trilite 1.5. Waterloo Campaign demo, X-Files Trivia Challenge 1.1, X-Plane 4.21 demo. X-Plane Classic 4.21 demo, X-Words Deluxe

Interface

8Tuner 3.0.6, Appearance Designer 1.0b7, AppSwitcher Control, AppTab 1.6.1, Desktop Magician demo, DragAnyWindow 4.3, Flash-Stars 3.0.1, Hippo 2, Instant Folders 2.2, Key-Quencer Lite 2.5, NewCM 1.2.2, Square One 3.0, Switch-It 1.7, SwitchRes 1.4.1, TealScript 1.28

The Kitchen Sink

CookWare 3.6. Ennoc Besfidec 1.1, Filo 3.0, McHurricane 3.3.4-SW

Multimedia

iView Multimedia 3.3, Oculus 1.01d1

Productivity

BBEdit Lite 4.1, Communic8 1.2b2 demo, Invoice Builder 1.2, Organizer for 1999 2.7, Schedula 2.5 demo, SpeedDial 1.0, Speed-Type 1.1, Time Palette 3.0.2, Wine Cache 1.0, XContact 2.11

Sponsor Demos

Action Files 1.1 trial, Beatnik plug-in, Classroom Publisher 2.0.8 demo, EarthLink TotalAccess 2.0 trial, FWB Software offer, Gridz 1.2 demo, GrooveMaker demo, Picasso 540 3D Card demo

Updates

Diablo update 1.07, eMerge update 1.5.3, Installer VISE update 5.5.2, Mailsmith update 1.1, QuarkXPress update 4.03, TechTool Pro update 2.1.1, X-Plane update 4.21

Utilities

DiskTracker 1.1.4, EjectMenu 2.0, Epson Printer Drivers for iMac, File Buddy 4.3.6, File Pirate 2.0 demo, I Love Native 2.0.3, MacZip 1.00b6, Manipulator 1.0, MouseHouse 2.0.3 demo, Odd Jobs 1.2, StuffCM 2.0, Y2K Software Audit 1.04, Yank 3.0.2

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The Iconfactory

Craig Hockenberry, chief typist at the Iconfactory, had this to say about the new icons in Mac OS 8.5:

The chief typist's first contact with a 32-bit icon was on a huge video screen at Apple's Worldwide Developers Conference. As one of the engineers at Apple remarked. "Icons. Icons. Icons. We all love icons!" They sure do. The new 32-bit icons in Mac OS 8.5 are stunning! Here are just a few of the highlights:

- lcons are in millions of colors that allow smooth gradiations and transparency. You can now make a see-through icon!
- Mac OS 8.5 features antialiased icon shapes that go very nicely with the smooth text display. The smoother shapes also help the chief typist's aging eyes see small icons.
- In Mac OS 8.5, when you select an icon—even an old 256-color one—it doesn't highlight with funky colors.

All is not perfect, though. An application's icon in the desktop database is limited to 256 colors (for network compatibility). The Iconfactory solved this problem by adding custom icons using its 32-bit version of IconDropper.

The Iconfactory is hard at work on new 32-bit icons for Mac OS 8.5, and it also has a new version of IconDropper coming soon. Visit http://www.iconfactory.com for more information-and some cool new icon tools!



SEE HOW SMOOTH ICON EDGES ARE in OS 8.5—no more dithered pixel approximations.



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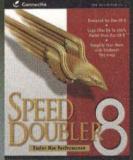


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ble with the new Mac OS 8.5



editor's note

Our message to you in the real spirit of the holidays

he December issue is here—number 28 already—and we're pretty proud of the package. A lot of effort went into it. Not only do we have killer features, how-tos, and reviews, we also have two posters and a demo of the hottest game released on

the Mac in quite timesome Tomb Raider II. And if we're doing our job properly, it seems effortless to you-maybe even a little fun. Sure, it sounds like a dream job-after all, we do get quite a selection of the latest hardware and software, and we get to play with it all-but the real thing is a little more complicated,

because real life gets in the way. Here's a little sample of what went on this month while we were toiling away to bring you the latest issue.

Movements

Both managing editor Jeff Titterton and digital media editor Kris Fong had to find new places to live. A couple of things made this more difficult than a mere romp through the Sunday want ads: San Francisco's apartment vacancy rate currently hovers at 1 percent or less (driving up rent considerably), and both Jeff and Kris have pets (cutting the number of available apartments significantly). Fortunately, both found new pads before having to pack up and leave their old places.

Auto Troubles

While driving back from San Mateo (15 minutes south of San Francisco), my truck engine

Sure, it sounds like a dream job—after all, we do get quite a selection of the latest hardware and software, and we get to play with it all—but the real thing is a little more complicated, because real life gets in the way.

seized up. Dead. Gone. Fused steel and aluminum. I trekked several miles through the suburban wilderness of South San Francisco looking for a pay phone. Three weeks later, the truck is still in the shop, and I'm on my motorcycle as the rainy season begins. Meanwhile, Jeff's car suffered a hit-and-run accident while he was moving into his new place (struck by a moving truck, no less), then he got a flat tire one morning while coming to work. While she didn't have any specific auto trouble this month, Jennifer Ho faces commuting across the Bay Bridge every day-one of the busiest bridges in the United States, complete with van fires and police actions. Mark Simmons, on the other hand, has to face the daily horror of mass transit (riding two different counties' bus systems).

A Sense of Humor

Aside from these daily distractions-and others too numerous (and painful) to mention-we managed to keep our sense of humor. Nikki Echler offered Rob Capps \$1 if he'd eat a biodegradable packing peanut and he did. Then, in an effort to make our building more secure, our office doors were fitted with electronic locks, meaning we have to wear plastic cards if we want to get into our cubicles. So we made our own roadie labels with QuarkXPress and an Epson Stylus PhotoEX. They're pretty convincing fake IDs, but I doubt they'd get us behind the scenes at the Lilith Fair. Also, during some experimentation with Mac OS 8.5, Mark Simmons discovered that the Help Viewer application understands two new HTTP protocols that allow you to trigger Apple Guide files and open control panels through a simple HTML link. That caused great humor for the next couple of days. And finally, Rob was cat-sitting for a friend, and the felines wouldn't stop meowing, so we substituted a meow for his system beep. He was not amused-but we were.

Oh, there were two final trouble areas: In a recent review of the Epson PhotoPC 700 (Sep/98, p59), I mentioned that the camera ate batteries for lunch—a common problem for most digital cameras. I failed to mention that the PhotoPC 700 ships with rechargeable batteries and a charger—a convenient and spiffy solution. Also, in a review of the Crescendo G3 512K upgrade for the Power

Macintosh 61xx, 71xx, and 81xx (Oct/98, p62), we mentioned that the card has an onboard slot for AV and video cards. The adapters for these cards have not yet shipped, but Sonnet says they will be available near the time you read this. See? It never ends.

I'll stop whining now.

Lump of Coal

following, but we felt we would be remiss in our journalistic duties if we didn't. We intercepted part of Santa's TCP/IP stream and found out whether certain Mac industry notables were naughty or nice and what they might get for the holidays.

The iMac

Verdict: Nice Reason: Blossoming Mac sales and a tremendous boost when Apple needs it mos Stocking stuffer: A shiny new floppy drive

Lara Croft

Verdict Nice

Reason: Appearance on the Mac—finally Stocking stuffer. Head enhanced to scale, a guest role on *Friends*, and a few hundred more polygons.

Prison Guy

Verdict, Naughty

Reason: Knifed an inmate for bashing the G3 minitower

Stocking stuffer A week in the hole

Tim Gill, CEO of Quark

Verdick Nic

Reason: Came through with that copy of QuarkXPress 4.0 for the elves Stocking stuffer: Adobe

Bill Gates

Verdict: Naughty
Reason: See attached files (carbon copy to
the Justice Department)
Stocking surfer: A midnight visit from the
ghosts of allomeys general past—and Janet

Which just goes to show that there is justice of some sort in the world. Cheers!

High-Resolution. High Bit Depth. Highly Desirable. Highly Legal.



35mm slide and filmstrip adapter

Did you ever think you could have this much fun with a scanner? Don't worry it's legal. With Microtek's new legal-size, highresolution ScanMaker® X6EL color scanner you scan a document or photo up to 8.5" x 14" in one single pass. The 36bit ScanMaker X6EL is capable of delivering more image data for scans with richer, smoother tonal values than you can get from comparably priced 24-bit and 30-bit scanners. It even includes the LightLid™ 35, a 35mm slide/filmstrip adapter for scanning slides.

The ScanMaker X6EL's new push-button design calls up Microtek's new *ScanSuite*™ utility. ScanSuite's presets let you quickly scan photos or documents and route them to your printer for a quick copy, your fax or email software, or directly to Adobe Photoshop LE (included),

Caere OmniPage Limited Edition OCR (included), or any favorite application you have on your computer. To access even more image controls and effects, ScanSuite also lets you call up Microtek's award-winning ScanWizard™ scanning software.







- · Legal-size scan area
- Push-button scanning
- · Fast single-pass scans
- 600 x 1200 dpi optical resolution
- 9600 x 9600 dpi enhanced resolution

LightLid™ 35 - slide/filmstrip adapter



ettes

From the incoherent to the incomprehensible, we bare it all

This Month

WRITE TO US: MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005, or email to letters@macaddict.com. FOR CD PROBLEMS: Go to http://support.imaginemedia.com. FOR SUBSCRIPTION QUERIES: Call (toll-free) 888-771-6222.



GET ON, GET ACTIVE. Talk to us and to other Mac addicts at the Web site.

YOU'RE ONLY HUMAN

It was calling me today with a quiet and small voice. I could hear it during my lunch hour. Only 20 minutes away was a CompUSA, and inside that was an iMac. The voice was saying something about playing a game of MDK, and how it's been a long time since I've visited. I don't know. Something is not right.

I shouldn't have these feelings of guilt.

My Mac at home doesn't care if I share this connection with another computer. Right?

—D. CHADD PORTWINE

WALT WHITMAN ON LINE TWO

Hee, hee, hee, I like my G3! Hee, hee, hee, I like my G3! Ho, ho, ho, but now I must go!—WYNNE BREED

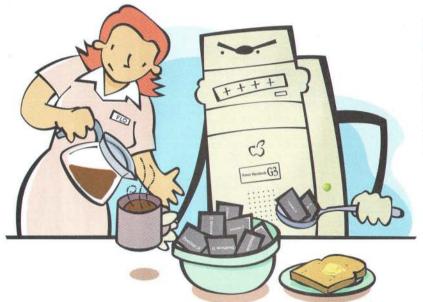
THAT'S CLASSY, REAL CLASSY

You know those folder thingies you send the CDs in? They make swanky coasters.

-MIKE TRAINOR

SHE TOOK AN OS BULLET FOR YOU

After perusing the October MacAddict issue, I stumbled across Robin Williams's "My Lousy Summer with Windows 98" feature (Oct/98, p40). After I was done reading, I had tears from hours of extreme and physically painful laughter. I had also migrated to a new position, as the human body has a nasty tendency not to stay in place during spastic eruptions of laughter. Anyway, I'm now stuck in my toilet, and I fear my close friends and relatives are starting to worry. Please help me, or at the



very least send me a PowerBook G3 so I can play with all the shareware from this issue.—Ry4an Bruels

OK, so I'm reading this article about Winblows 98 by Robin Williams (who I assume is *not* the same Robin Williams I loved in *Mrs. Doubtfire*) and I have to ask—how much did you guys pay her to write this article? I wanted to cry for her when I read about those DLL files (whatever those are) and about her experiences at OfficeMax (no relation to *MacAddict*'s Max, apparently). She's a real trooper to have dealt with that OS and retained her sanity...or some semblance thereof. Glad to have you back, Robin!—Andrew Putschoegi.

IT SHOULD BE YOUR LITTLE SECRET

My PC-oriented friends always make fun of my devotion to the Mac cult and the fact that I am proud to be an Evangelist. Boy, I hope they don't find out that twice a day I face Cupertino to pay homage to the Shrine of the iMaculate Conception.

-FAY ZERBO

WHAT'S FOR LUNCH?

I just wanted to drop a line to all those people out there who are contemplating buying a new G3. There are some serious hidden costs that I need to bring to your attention. Upgrading to a G3 was great—and not all that expensive. Buying all those Pentium II processors that my G3 is eating for breakfast is what's getting expensive!—RICH SMITH

ANOTHER TLA ADDICT

In the recent wake of iMac-related info on your site, I have several questions about the whole USB thing:

- Can I hook DVD to USB and get TV from the BBC?
- Does USB support those who wear BVDs?
- If you put TNT in USB, will it be DOA?
- Can I hook my IDE HD to USB?

 —Neal Te Paske

MR. FUNNYBUTT,

Punisher/Editorial Disemboweler: Feral England? Serial Beheaders: Ikky Nikki Eekler, Graverobbert Capps? What's up with that? Did somebody replace the usual typist with Mr. FunnyHead? Don't make me come after you with Spam on a spork, chicken butt.—Lee Barnes

GOT IT

COMPUTER VERSION:

<>!*''#
^"`\$\$!*=@\$_
%*<>~#4
&[]../
|{,,SYSTEM HALTED

IN ENGLISH:

Waka waka bang splat tick tick hash, Caret quote back-tick string string dash, Bang splat equal at string underscore, Percent splat waka waka tilde number four, Ampersand bracket bracket dot dot slash, Vertical-bar curly-bracket comma comma CRASH.

Get it?—Jonathan Bringhurst

THE TRUTH HURTS

No, it's not a virus, it's a clipboard clipping of a screen shot that occurred when I tried to use Eudora with AOL as my Internet service provider. Fat lot of good that does!—BRYAN BRODIE



Server not responding.

3

The network failed (what this means is 'to be supplied in a future version of the MacTCP documentation', fat lot of good that does). {tcp:116}

Go "Offline"

OK

YOU KNOW YOU'RE A MACADDICT WHEN...

...you bite into a McIntosh apple, and if it's not a very good one you think. "Must be a Performa."

-ANDREW J. AYERSH

... you see Saving Private Ryan, and you wonder if they're saving him to an HFS+ drive.

-MATT SMITH

...you say to your girlfriend, "My, what beautiful Bondi blue eyes you have!"

-KEVIN PERRY

...vour doorbell makes the sosumi sound.

-EDDIE GRAVES

You know you're a troubled Mac addict when you use 75 percent of the software on your hard drive to fix your Mac.

-KEITH KAISERSHOT



RECENTLY SIGHTED

Devin Durham, one of our devoted readers, sent in these photos of a custom Macintosh project be put together. Here's Devin's story.





This entire project actually started several years ago when I built an LC into a PC tower case for my brother. At the time, I really wanted to build that LC into something more

interesting, but practicality won out. The idea was still in my mind, though.

Recently, I took a 1948 RCA Globetrotter portable radio and converted it into an external hard drive case. It looks really good, and I amazed several people with it. Shortly after that, my brother bought an old (circa late 1940s) Zenith radio and record player and accomplished the same task without the portability.

That Zenith case (donated by my brother) is now the case for my Mac. Currently it sports a 7600 logic board with a 132MHz 604 daughtercard (those things are amazingly cheap). I currently run with 20MB of memory, the standard 2MB of VRAM, 256K of level 2 cache, a 1.2GB hard drive, and an 8X CD-ROM drive. The Zenith case is very similar in size to the 7600 case, and everything fit rather snugly. I had to disassemble the power supply and redistribute the components, but aside from that everything else fits amazingly well. (Almost too well. One begins to wonder what they knew back when they first built that radio.)

I had to make the decision as I was building the Mac (which I call the Macintosh DLZ3 for intensely obscure reasons) whether I would restore the wood of the case or leave it as is. In the end, I left it in its original state, with several nicks and worn spots, and even a small cigarette burn in the back. It has lots of character—I couldn't bring myself to strip the history off the case. As I was putting the machine together, I took pride in showing it to my friends, and several of them pointed out that the radio dial on the front of the case is almost exactly the size of a CD. Challenges began to surface.

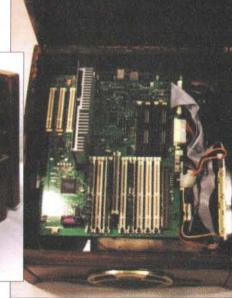
With about a week's worth of tinkering, in which I tore an Apple 8X CD-ROM to pieces and put it back together again, I actually managed to mount the drive as shown, which gives a serious *wow* factor anytime I show off my Mac. You can dimly see the CD rotating behind the radio dial. Loading a CD is not exactly as simple as dropping it on the tray anymore, but it isn't difficult, either. All in all, it works really well.

You can see right into the guts of my Mac. You might notice that the processor daughtercard sticks up above the rim of the case just a bit. When the lid closes, there is probably about an inch of space up there-again, a nearly perfect fit. Also, notice that the hard drive is mounted on its edge-the miracles of Velcro! The power supply sits underneath the motherboard, on the right side near the back if you are looking into the case from the front. Once I rearranged the power supply a bit, it fit perfectly, and there is even a vented area on the back of the case right where the power supply bolted in that provides an excellent source of air for the fan.



DLZ3 SPECIFICATIONS

7600 logic board
132MHz 604
20MB of RAM
2MB of VRAM
256K L2 cache
1.2GB hard drive
8X CD-ROM
Total cost to build: Less than \$1,000
(after the Mac purchase)



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 1280 x 1024/60 Hz NI
 0.28 mm dot pitch
 Headphone jack and two three-watt side-firing speakers

Diamond Scan 70

Diamond Scan 70M

- · Headphone lack and two three-watt

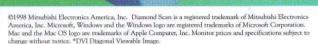
Diamond Scan 90e

- 19" CRT/18.0" DVI 1600 x 1200/75 Hz NI 0.25 mm dot pitch
- USB upgradability













If you look closely, you may notice there's no floppy drive anywhere. attached With the CD-ROM drive and an external Zip drive, I have found that I haven't touched a floppy since I built this machine. (I still get them from AOL, though. Anyone want

some free disks?) I am wondering when the rest of the computer industry will catch up to me and begin to offer a floppy drive as an option instead of standard equipment. Just remember, you heard it here first!

Note: Devin sent us photos of this design months before the iMac became public knowledge.

The cool black keyboard and mouse is from my Mac TV (one of the coolest machines ever). Since I use the Mac TV to...well, watch TV, I use the keyboard and mouse on the DIZ3. Sitting on top is the external hard drive case I built out of the RCA portable radio. On the shelf above the monitor and next to the wind-up Zeppelin toy you might be able to spot my Newton. On the top shelf on the right is the Maltese Falcon. And yes, that is a Thompson up there on the wall. I use it to keep away agents of Microsoft who sometimes try to sneak in and install Internet Explorer on my Mac.—Devin Durham

WE'RE OPTIMIZING FOR SPACE

For years I have labored under the impression that the correct haiku poetry form is 5-7-5, for a total of 17 syllables rather than the 14 cited in your review of Haiku 0.2 (Oct/98, p27). This inspired me to compose the following example of this venerable art form:

Autumn leaves drift down; outside frost-covered Windows Macintosh are ripe.

Maybe the next update should be Haiku 5.7.5?—Sara Hartmancoasters

WE'LL WANT FLOWERS FIRST

Omigosh! Late last night I was going through my (vast) *MacAddict* collection—as I often do, and I don't know why—and I realized for the first time that there's a flip-it cartoon in the October 1996 issue. Like, whoa, dude. I also noticed in the October 1998 issue several letters praising Mark Simmons. I have to say (this is best if read with the voice of Mayor Quimby from *The Simpsons*), "I hereby declare that I was one of the first to praise

Mark Simmons and base my life on his teachings. And I feel it is a grave mistake to make him stop drawing cartoons." It is my feeling (OK, you can stop with the Mayor Quimby thing) that the "Marky Mark" (May/98, p14) is the most useful benchmark around. Also, one of my lifetime goals is to meet the *MacAddict* staff. Do you come to Salem, Oregon, often? Well, then. Next time I come to Frisco, I wanna shake hands with all of you. OK, we can hug too, but that's as far as it goes.—Grant Thomas

So You're THE ONE

I'm the guy who yells at everyone for using that tired old cliché, "Version 2.01.7024.7 is better because it's like version 2.001.65.8 on steroids!" In case you'd forgotten, steroids are illegal, dangerous drugs. Also in case you'd forgotten, this metaphor is vintage 1987. I suggest updating your language to something like this: "Version 2.01.7024.7 is better because it's as if version 2.001.65.8 were RuPaul doing Vivarin, drunk, and double-dosed on Viagra!"—Tim Grant

NOBODY LIKES A SHOWOFF

I'm fast lately. I have an iMac—that's fast. I have an ADSL line—that's fast. I can read *MacAddict*'s Web page fast. Basically I now have the following:

iMac = fast

ADSL = fast

Sorry if the above is a bit cryptic, but I'm just so proud of my iMac and my new Internet connection. If you put this in *MacAddict*, I'll email you some food (whatever will fit in the scanner) every week!

-NICK "KOSH" PRINCIPE

YOUR FOLKS MUST BE PROUD, TOO

I found an Easter egg. I'm so proud of myself. In Sim Tape Dispenser, if you hold down the Option key when you click, you put tape back on the roll and your score diminishes by one.—Alec Mills

OR YOU COULD JUST LISTEN TO THE RADIO

I recently purchased a refurbished PowerMac 6500/250 with an audiovisual monitor. I didn't write this to brag, but the 6500 has an excellent built-in subwoofer. I was looking at my stereo with its three-disc changer, dual cassette, and so on, wishing that its sound was even half as good as my new computer's. Through a little wiring magic, I now have that CD player working through the speaker system on my Mac! Here's how to manage it:

 Go purchase a 3.5mm-to-3.5mm stereo jack (both ends look like the plug on your

- headphones) for about \$4 at your local electronics store.
- Plug one end into your Mac's sound-in port.
- Plug the other end into the headphone jack on your radio, Walkman, eight-track, whatever.
- 4. Go to the Monitors & Sound control panel, then the Sound area. Click Sound Monitoring Source and choose Sound In. Ta-da!

Note: That last step is a lot easier if you have the sound source control strip module that comes with Mac OS 8. Now you can listen to the radio on your Mac for the price of a cheap radio and a \$4 cable!—W.S.T.E.

AND CRUNCHY

I just noticed that Netscape's MagicCookie file type is Munchies. Cool, huh?

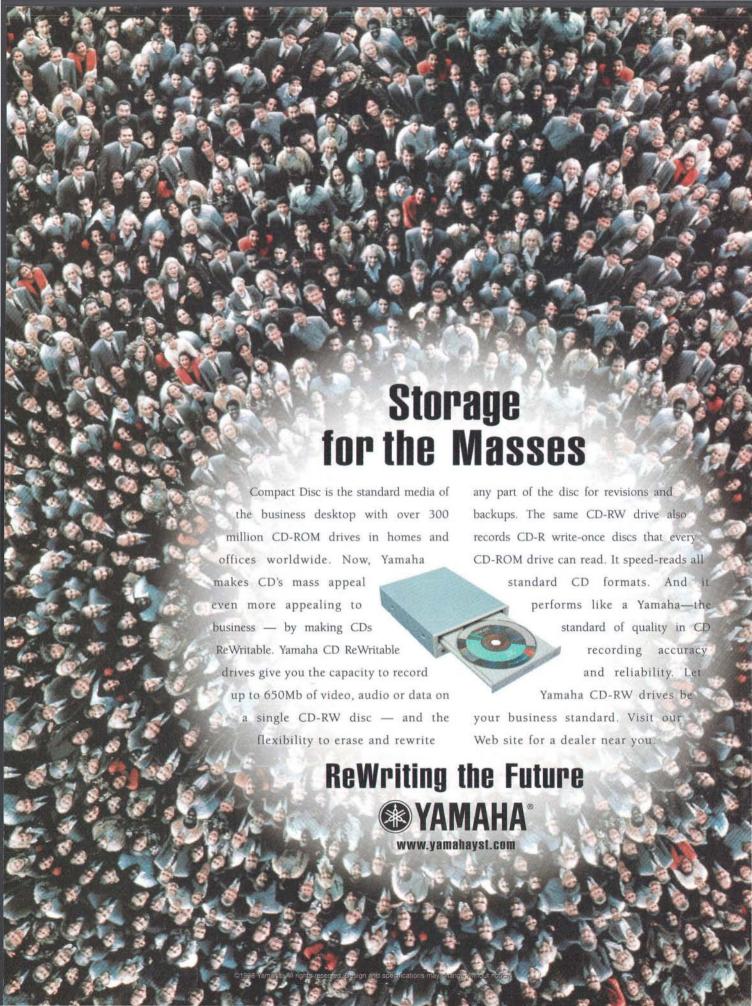
-DAN DARANCIANG

T'LL CURE DROPSY, TOO

You'll have to excuse me-this is a serious letter. A previous owner of a Mac Plus and a Mac SE back in the eighties, I decided to purchase a new computer about three months ago. Over the years I had lost touch with the Mac community, so one evening at work I found myself surfing at the (fill-inthe-blank) sites looking for my next "PC." The same evening I found about a year's worth of your magazines in the break room (all 12 issues of your first year, as it turns out). I browsed through them, curious as to the financial and creative health of Apple. To cut to the chase, your magazine got me to do more research and reading, and now I'm sitting in front of my new iMac with October's issue of MacAddict on my lap (I now have a subscription) and your CD-ROM in my drive. Furthermore, my wife has stopped drinking and has lost 30 pounds, my kids are all of a sudden well behaved, and my gray hair has gone away. "A better machine. A better magazine," indeed.—RICHARD LEBREUX

THEY'RE JUST DEAD

I made an amazing discovery. If I listen to Rod Stewart and run Deadlock on my PowerBook 520c, my frogs hold perfectly still the whole time. This may not seem important, but if I just play Rod or just play Deadlock, they act normal (happily hopping around their aquarium). Are there other reports of this? Does it have something to do with the fact that I'm in Germany? Could I get a grant to study this? Would the grant be enough to pay for a newer 'Book? The world may never know.—Peter Vobler





The iMac is still topping the charts, but we've got a few new tunes as well

iMac Update

You bought one of those things?

s the iMac begins its reign, and Apple looks forward to making piles of money, one thought seems perched on the minds of the consumer masses: Where the heck are all those dang peripherals?

Well, we went out and scoured stores, vendors, PR firms, and the Internet in an attempt to find out when iMac owners will get the most basic computing capabilities-printing and removable storage. Here's what we found:

Epson now offers connection to its printers with a nifty USB converter cable (available everywhere even as of this writing) for just \$49. The cable comes with drivers for the Stvlus Color 440, 600, 640, and Photo EX. Additional drivers for the Photo 700, and Stylus

> Color 800, 850, 1520, and 3000 can be downloaded from Epson's

> > Web site (http://www .epson.com). Epson is now also shipping the Stylus Color 740, which connects directly to the iMac and costs \$279.

Hewlett Packard is finally shipping a printer cable that connects select HP printers to the iMac for \$69. HP assured us that tens of thousands of these adapters have gone out, so you should be able to find one. The cable works with (and comes with drivers for) HP's DeskJet 670 and 690 series.

Farallon Communications now offers a printing solution via its new iPrint Ethernet converters, which allow you to connect Local-Talk-capable printers or Apple StyleWriters to the iMac's Ethernet port. The \$99 iPrint IT will connect one Ethernet device to a LocalTalk chain of up to eight devices. The iPrint SL, also

\$99, connects the StyleWriter line to the iMac's

Ethernet port.

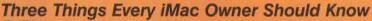
Asanté Technologies makes a gadget called AsantéTalk that converts Ethernet to Local-Talk-allowing iMacs to print to LocalTalkcapable printers (such as HP's DeskWriter series) via the iMac's Ethernet port. AsantéTalk should be available by the time you read this, and will sell for around \$100.



print side is Momentum's

uConnect USB-to-serial adapters. These \$84 adapters let you connect all kinds of serial devices to the iMac. Momentum currently ships one version for connecting Palm Pilots, Newtons, digital cameras, and Wacom graphics tablets; and another for connecting StyleWriter, Epson Stylus Color, HP DeskWriter, and other printers. For a complete list of compatible printers and devices, http://www.momentuminc.net.

- The only removable storage device available as we go to press is Imation's SuperDisk. Nearby retail outlets, however, still showed very few of the \$149.99 combination 120MB SuperDisk and standard 1.44MB floppy drive. An Imation spokesman said the drives are going out, but because of huge back orders, many stores purge them as fast as they come in.
- Still notably missing from the removable storage ranks is Iomega, which won't even officially state when it will release its promised USB Zip drive. Don't count on getting one too soon-an Iomega representative told us that the only safe assumption is that it will be out by the holidays.
- Syquest appears to be a little ahead of Iomega with its upcoming USB 1MB SparQ drive, promising it will be in the channel by Thanksgiving. The SparQ is set to sell for \$249.
- Finally, Newer Technology is still promising a November release for its \$90 iDrive USB floppy drive.—RC



ow that the iMac has a couple of months of real-world experience under its Bondi blue belt, we've noted a couple important issues that iMac owners should take note of. For troubleshooting advice, see Apple's iMac support site at http://www.apple.com/support/imac.

Software Updates-Within a month of the iMac's arrival, Apple released two updates for its system software, both of which are available on The Disc. The iMac Update tweaks the machine's ROM file to improve the handling of third-party USB peripherals, while the iMac CD Firmware Update eliminates noisy vibration from the internal CD-ROM drive.

Modem Downshift—In response to early complaints that the iMac's built-in 56-kbps modem had difficulty connecting to ISPs, Apple has provided an alternative modern script that connects at a slower but more reliable 33.6 kbps. We've put this on The Disc as well.

Secret Reset Button-Generally, you can't restart a frozen iMac using the traditional Command-Control-Power key combination. Rather than disconnecting the iMac's power cable, keep a bent paper clip handy so you can push the reset button hidden in the iMac's side door.—MS

iMac Facts and **Figures**

his probably won't come as a shock to the eager buyers who lined up for that first midnight early numbers it appears Apple's sales records across the board. Both CompUSA and Creative Computers (parent company of Mac-Mall) reported that the iMac debut was their biggest computer launch ever. Meanwhile, research firm PC Data claims that burgeoning iMac August, with 13.5 percent of the U.S. retail unit sales. The iMac itself, with a 7.1 percent share, was second only to the 8.6 percent share claimed-and the iMac was only on sale for half the month. ZD Market Intelligence weighed in with a report that as a side effect, the iMac Power Mac and PowerBook lines about 20 percent.

The experience of Computer-Ware, a 10-store Mac-only retail grabbed headlines with its exit poll of 500 early iMac adopters-which indicated that one in six were firstcent of those who already owned a computer were replacing or supplementing a Wintel machine—the sales. In addition to selling 1,240 moved 603 Power Mac G3s, a 20 percent increase over the 500 it month were three times higher than last August's. If the same scenario is playing out in other stores, this should be a spectacular season for

Where's the After Party, Man?

Five applications scattered after the Claris blowout;

we tracked them down

the dean was exposed, the brothers went their separate ways and-oh, wait. Wrong movie. After Claris spun off into FileMaker and divided its corporate assets with Apple, the software packages went their separate ways. But with some help from Billy Sanchez (a noted bounty hunter and part-time cellist), we tracked down the whereabouts of

Claris FileMaker—Arguably the most successful of the lot, FileMaker stayed with the eponymous spinoff company and became its flagship product. FileMaker is now in ver-

the Claris Five.

Dialog, letting users query ODBC databases without learning

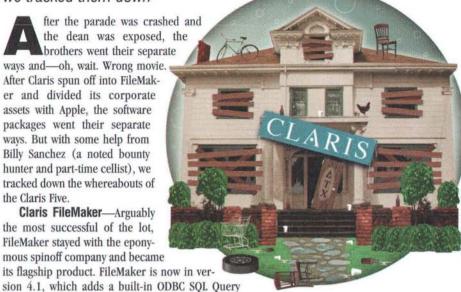
SQL. Huh? It just means FileMaker can access more data without you having to learn programming. FileMaker Pro's sales among Windows users tripled in the past two years, while Mac sales have held their ground.

ClarisWorks—After a tussle with a couple of OpenDoc Live Objects, ClarisWorks rejoined Apple to start a new life. Hoping to jumpstart a fledgling career, ClarisWorks changed its name to AppleWorks and is now distributed on new Macs and sold in retail outlets.

Claris Emailer—Claris Emailer also left Claris for Apple, but after it had a disagreement with Outlook Express (Steve's email client of choice?), Apple told it to wait in the lobby, where it's still sitting. While Apple hasn't articulated what Emailer's fate will be, we can take a hint from the recent Mac OS 8.5 release that bundles Outlook Express—not Emailer—as the default email client.

Claris Organizer—Though Organizer landed on the inactive list, Palm Computing recently picked it up for use as the Mac client on Palm III handheld organizers. Palm is developing Organizer's talents to mesh smoothly with the Palm platform, and is renaming the software Palm Organizer.

Claris Home Page—Home Page is currently at version 3.0, where it's been for some time now. FileMaker continues to sell and support Home Page 3.0, and the company sees the Web page editor as a strategically important part of its product line-after all, Home Page 3.0 supports CDML, which is the set of HTML extensions that let FileMaker databases connect to Web pages.—DR



Tech Info Tidbit

Useless bits of knowledge to make the world a better place (Source: Apple's Tech Info Library at http://til.info.apple.com)

t looks as though the folks behind Apple's Tech Info Library have been into printers lately-they've been updating the printer technical notes like mad. Here's a recent

Sometimes, when you're printing on an envelope, the heat from a LaserWriter turns moisture into steam, sealing the envelope. Here's one way to prevent this

- Buy some parchment for baking (or parchment paper) at your local grocery store. This paper is meant to resist heat—after all, Martha Stewart cooks with it.
- Cut a piece of parchment to fit inside the envelope, and insert the piece with the smooth side against the glue seal. Fold the envelope so it's closed
- Go ahead and print on your envelope. When you're done, remove the parchment; you can use it again in another envelope.

get info

The Allegro Sideshow

The geekier side of Mac OS 8.5

n this issue's "How to Survive 8.5" (p52), we look at some of the new system software's most important and significant features. But where is the trivia, the petty detail that titillates the senses and delights the sensibilities of the hard-core OS maven? Well, right here, for starters. Put on your propeller beanie and let's play in the mess of Apple's new OS.

HTML Help—Surprise! Apple's new online help utility, Help Viewer, is actually a mini Web browser. Help Viewer doesn't know how to open Web pages while they're still on the Web, but you can use an AppleScript command—for example, tell application "Help Viewer" to open {alias "Kerberos:Internet:HTML:home.html"}—to make it open an HTML file saved on your hard disk. Another unanticipated feature of this utility is its ability to launch AppleScripts and Apple Guide files. If you enter the URL help:runscript—"Mac OS Help:shrd:

Quark Backs Off

Adobe is safe...for now

Quark's bid to buy desktop publishing rival Adobe Systems (see "Fish or Cut Bait," Nov/98, p21) than the devious denizens of Denver, Colorado, called off their controversial plan. Just three weeks after trumpeting its proposal to pursue unspecified "synergies" by merging with Adobe, Quark concluded that there was no chance of a friendly deal. In the words of Quark chair and founder Tim Gill, "We do not believe that a hostile transaction at this time would be beneficial to Quark, Adobe, the Adobe stockholders, or our respective customers." Gill cited Adobe's "poison pill" defenses, and the legal complications thereof, as a major obstacle to pursuing a hostile takeover. It's not clear what exactly this poison pill was, In a terse statement, Adobe's management described itself as "pleased" that Quark had abandoned its acquisition plans.—MS

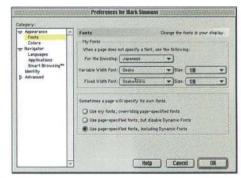
OpnCntrlPnl" string="mmry" when Apple's Connect To prompts you, or click on such a command embedded in a Web page (where single quotes enclose the URL), Help Viewer will launch an AppleScript from within the help utility folder and open your Memory control panel. Yikes!

Internet Expert Features—The remodeled Internet control panel doesn't just store basic email, Web, and newsgroup access info. From the Edit menu, choose User Mode and



set it to Advanced, and you'll get an extra tab that lets you tweak all kinds of expert settings—Helper Apps, File Mapping, Firewalls, Hosts, and every other feature of the underlying Internet Config software. Note that Apple's Help Viewer utility has registered itself to handle the Help protocol.

The Global Browser—When you install Mac OS 8.5 and check the Multilingual Internet Access option, you'll be able to view Chinese, Japanese, and Korean text in Steve Jobs's browser of choice, Microsoft Internet Explorer...but not *only* in Internet Explorer. The



multilanguage support also works perfectly well in Netscape Navigator and Communicator—all you need do is select the appropriate fonts in the Fonts category of the browser's Preferences dialog, and you'll be checking out http://www.apple.co.jp in no time.

Navigation Services—One of Mac OS 8.5's most noteworthy new features is the Navigation Services interface, which replaces the tired old Open and Save dialogs with a snazzy new file-pickin' window. It is actually backward compatible with older system versions—much older system versions. Using this with the appropriate version of Apple's Appearance software, you can actually run Navigation Services on any Mac OS version from System 7.5.5 onward. You'll need the Navigation shared library (which belongs in your Extensions folder) and-unless you're already running Mac OS 8.1—the latest version of the Appearance extension and control panel. You can download these from http://developer.apple.com/sdk as part of the Appearance and Navigation Services developer kits. Until more applications support Navigation Services, you won't see much of a change, but you'll be ready for the future.-MS

Apple Abloom Abroad (again)

iMac impacts reported globally

pple's comeback on its home turf is renewing the Mac's once-lusty shine in international markets as well, especially with the introduction of the perfectly polished iMac overseas in September and October. Steve Jobs himself alighted in Paris for the French launch, and iMac retailers in Japan found themselves in a flurry of activity, as customers railed for Apple's consumer offering.

Continuing its international Mac campaign with verve, Apple added Euro-symbol compliancy to Mac OS 8.5, as well as multilingual Internet access support through its implementation of Unicode, eliminating the need for additional language kits. And you thought Microsoft had plans for world domination.—JH



When Bubba Claus stops by my trailer this year, I hope he brings a copy of RedNeck Publisher. I can't wait to fill out the Dating Questionaire with its pertinent queries on inter-species relationships and chewing tobacco preferences. I get all fluttery when I consider how much the divorce check list will help me through my next decoupling with thought

provoking questions like,
"Did she talk during football
season?" But most of all,
I can't wait to see how the big
red guy gets that tremendous
collection of butt cleavage
down a three inch stove pipe.

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MacAddict Citizens Unite!

It won't be that hard, there's only a dozen of you

raven-hearted, pathetic slobs that we are, we here at *MacAddict* require the loving affirmation and constant attention one normally reserves for wide-eyed puppies just rescued from the pound. Case in point: In our August issue we put your love to the test with a 10-question quiz that grilled you on your Mac knowledge and *MacAddict* loyalty. We promised to reward the correct answers with an official *MacAddict* citizenship card and the chance to win a set of 10 super cool books from the warmest, fuzziest technology book publisher in existence, PeachPit Press (http://www.peachpit.com).

After sorting through more than 500 entries, we came to the realization that you all need to get to know us a little better—only 12 entrants got

all of the questions right. After we dried our eyes and said bad things about you, we threw the winning entries in an old dandruff-encrusted cap and pulled out a winner. Rob Chinn of Anderson, Indiana, won favored-readers status by not only correctly answering all the stumpers, but by impressing us with a simple, but useful bonus tip:



"Since the actual, physical size of Web pages vary greatly, to get them to always print out onto one page set your page scale setup to between 60 and 75 percent." Thanks, Rob.

All 12 of our true friends will soon receive an exclusive, extremely limited edition, bound-to-be-a-collector's-item *Mac-Addict* membership card in the mail. All the rest of you will just have to sit there and wonder where you went wrong. To help you realize the error of your ways,

we've decided to give you the answers to the quiz, along with some of the funnier responses and wittiest tips. Thanks for playing, and

better luck next time!-NE

Five Best Reader Tips

1. In case you didn't know, F1-F4 do the same jobs as Command-Z, X, C, and V, respectively.—Alen Kalta



- 2. When trying to access a volume through the Chooser, instead of just clicking the OK button after picking a server, hold down the Option key and choose OK. This forces a connection to the server and is much faster than waiting through a spinning mouse.—Allen Harris
- 3. If you are in, let's say, Netscape, and your boss is coming, to hide what you are doing, Option-click (while Netscape is in the foreground) on where any other app is and Netscape becomes hidden.—Henry Marcus
- 4. If you just can't remember the name of that Web site you were visiting the other day, try typing about:global into Netscape Navigator's address window. If you know what time you were there, you should be able to find the address.—Ryan Greenberg
- 5. When playing a QuickTime movie, to crank up the volume much higher than intended for elementary users, hold down the Shift key while clicking on the far left volume selector button. Crank it up even beyond the notorious Spinal Tap 11 setting.—Mike Davidson

The Answers

Q. Which action can't be performed via a keyboard shortcut?

A. Emptying the Trash

Q. COPPER is a mnemonic device for remembering to:

A. Zap the PRAM

Q. The audio shareware program not mentioned in the article is:

A. Sound Editor

Q. Which of Adobe Illustrator's key command shortcuts didn't change from version 6 to 7?

A. Group

Q. Which action will not speed up your Mac?

A. Turning off the shutdown warning

Q. Who wasn't a MacAddict reviews editor?

A. Reuben Reynoso (he was a popular contributor to our Letters section.)

Q. What is this man's connection to MacAddict?

A. He is James Fallows, the former Washington Editor of the *Atlantic Monthly* whom we tried to convert in our premier issue from using OS/2 to the Mac.

Q. What are the correct RGB values for the original purple and green colors of the MacAddict Web site?

A. 99FF00, 660066

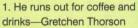
Q. Which one of these people has never been reproduced as an action figure in *MacAddict*?

A. Bill Gates

Most-Missed Question

Nailing down the identity of mystery man James

Fallows proved to be an exercise in creative writing. Here are our 10 favorites:



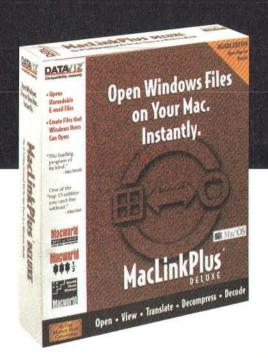
2. He's a dorky '80s time-travel correspondent in undercover clothing.—Jeff Johnson



He used to be the head assistant to the Weasel Lord, Nikki.—Tim Heck

- 4. He's the company yodeler.—Chris Wondra
- 5. He is the love child of Max and Kathy Tafel.—Caryl Haddock
- 6. Prison Guy's parole officer ... Chris Craft
- 7. He's Nort, Nort, Nort of the hard drive (without the glasses).—Mike Davidson
- 8. He likes to frolic about the trees while pretending to be a wood nymph trapped in a Macintosh lover's body.—Holly Braithwaite
- His name is Talking Tina and he's going to kill you.—Steve Marr
- 10. Why that's Mike Echler, Nikki's brother, obviously. Who doesn't know that?—Joshua Schripsema

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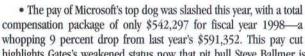




get info

MS Morbidity

Microsoft's misfortunes reported through the journalistic lens others reserve for Apple



highlights Gates's weakened status now that pit bull Steve Ballmer is supervising day-to-day operations as company president, and probably signifies a punishment for lackluster leadership over the past year. Analysts, however, are still hesitant to predict a Gates ouster.

Microsoft's troubled operating system strategy continues to falter, with ever-increasing
delays in the stagnant Windows NT 5.0 development effort. As the deadline for the already outdated OS slips more—the second beta version arrived two months behind schedule, a third
beta cycle has been added, and the final release isn't expected to arrive until the summer of
1999—confidence is decreasing that Microsoft's new high-end system software will be able to
generate any consumer enthusiasm in the face of Apple's eagerly anticipated Mac OS X release.

• Apparently wanting to get out while the company is still worth something, Microsoft founders Bill Gates and Paul Allen are rapidly selling off stock. Gates announced plans to sell off 1.5 million shares, while Allen purged himself of about a million shares. While it would take a blunder of Microsoftian proportions to throw away the approximate \$273 million total the two founders will get for the stock—which would seem to ensure a financial future for Gates and Allen—insiders are quick to note that if anyone can squander such a fund, it's these two.

• Intel—the one company the industry thought would always side with the downtrodden Microsoft—is finally fed up. Possibly the only company that can help Microsoft end its wild ride to the bottom, Intel gabbed to federal and state investigators about how the power-mad Microsoft couldn't muzzle its greed even when it came to dealing with the key processor manufacturer. According to an article in the New York Times, Microsoft threatened Intel for even thinking about business opportunities that might in some fashion, someday, mean competing with Microsoft. Intel may already have begun its counterassault against Bill, as it has signed on with Netscape (dubbed by many "The Microsoft Slayer") in investing in Red Hat Software, the maker of Linux—the latest OS in the marketplace that demonstrates absolute superiority over Microsoft's antiquated offerings.

Look Like Lara?

o celebrate the arrival of Tomb Raider II for the Mac, we've teamed up with Eidos and Aspyr Media to sponsor a Lara Croft lookalike contest. That's right—people of either gender can put on their best Lara dress and win cool prizes. The grand prize for the best imposter is a Tomb Raider leather

bomber jacket valued at \$360 and a copy of Tomb

Raider II. Two runners-up will receive copies of the game.

Just send in a picture showing off your best Lara look with your name, address, and phone number, and a brief description of how you achieved the look. Have fun with this—we're not looking for Barbie (or Ken in Barbie clothes) lookalikes. Send entries to I Want to Look Like Lara to Win Cool Stuff, c/o MacAddict, 150 North Hill Dr., Suite 40, Brisbane, CA 94005. And no, we will not accept any images of a head cloned onto Lara's body via Photoshop. We'll pick a winner by December 15.—DR



Microsoft Deathwatch

The MacAddict Index

Average retail price of an Apple computer in January 1998: \$2,0421

Average retail price of a Compaq computer in January 1998: \$1,1871

FOCUS ON: AOL VS. NETSCAPE VS...

Market share of Microsoft Internet Explorer as of mid-1998: 43.8 percent³

Market share of Internet Explorer, excluding copies bundled with AOL software: 27.5 percent³

Approximate number of signup floppy disks AOL distributed between 1993 and 1997: 250 million⁴

Total membership of AOL as of June 30, 1998: 12.5 million⁵

Registered membership of Netscape's Netcenter portal site as of September 2, 1998: 7 million⁶

FOCUS ON: PADDING THE LIST

Number of new and updated Macintosh products introduced between May 6 and September 17, 1998, as listed by Apple: 1,045⁷

Number of these that are localized versions of products Apple has listed elsewhere: 192

Number of localized versions of Turlough O'Connor's FinderPop 1.6.5 in the list: 10

Number of localized versions of Lava Software's Japanese WordMage 4.5 in the list: 11

Number of localized versions of Trade-Net by Offset Info Service's Factory Outreach 1.3 in the list: 11

Number of USB products in Apple's list: 44

Number of these that are localized versions of Imation's SuperDisk drive: 7

FOCUS ON: WHERE TO WATCH A MAC

(Hint: Not on the daytime soaps)

Number of ongoing television series in which Apple has wrangled Mac product placement: 27'

Number of these series airing on CBS, MTV, and WB: 2 each

Number of these airing on Fox, ABC, and NBC, respectively: 4, 6, and 10

Number of these that air before 8 p.m.: 0

Source: PC Data
 Source: ComputerWare and Market Metrics
 Source: International Data Corporation
 4 Source: Wired News
 5 Source: America Online
 6 Source: Netscape Communications
 7 Source: Apple Computer

 ___MS

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Adapteer's Toast and Jam™ are the easlest way to make your own music CDs. CD-Recording is here. And we're serving up the hottest new Macintosh based CD-Recording software just right to sink your teeth into. So whether you're a studio professional or just a juke box music lover, Adaptec will have you drooling.

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CIGWINS

Five finds that unfurl Mac-friendly fun onto the firmament

MouseHouse



ouseHouse is a home automation system that lets you automate appliances and schedule events with your Mac. For example, MouseHouse can wake you at 7 a.m. to the heavenly tunes of a Brahms piece or the modernist airs of Dvorák; it can lower the furnace setting when you're gone, then turn it up to a cozy 72°F one hour before you return home; it can turn lights on and off randomly when you're away so

your house looks inhabited; and it

MOUSE AROUND THE HOUSE AND MAKE COFFEE, TOO.

can help you make coffee, play CDs, and dim the lights so your dinner party goes smoothly into the wee hours. And you'll impress your guests! MouseHouse employs the standard X-10 protocol to control appliances and sends commands to an ActiveHome or CP290 interface, which you plug into your modem or serial port. The \$199.95 MouseHouse Starter Kit provides you with one ActiveHome hardware interface, a Mac serial cable, a six-in-one IR/RF remote control, a two-button key-chain remote control, a lamp module, and the new MouseHouse 2.0 software for programming all those important devices. As you become more adept, you can add more and more modules with which to control the whole house. In our opinion, Bill Gates should've used a Mac with MouseHouse to control his castle! If you see Bill, tell him to call 800-238-5149 or go to http://www.mousehouse.net for information.—JH

Zackback

Zackback International

f you work at a desk all day long like me, you know what an office chair can do

to your back and derriere. More often than not, it doesn't provide the kind of support you need. What are you? Australopithecus? Cro-Magnon? Quasimodo? No, of course not. Posture is important for Homo sapiens. Thankfully, there's Zackback, a computer posture chair invented by a former Mayo Clinic physical therapist. It stabilizes the pelvis, elevates the rib cage, and correctly aligns the head, neck, upper back, shoulders, and lower back. We're talking about true sacral and lower thoracic support, not the overhyped lumbar support, which actually distorts

MAN, THIS CHAIR'S GOT BACK! features

your posture. Zackback also features four-way adjustable steel armrests so you can tinker

with height, width, depth, and rotation to your liking. Ergonomic comfort comes at a price, however. Zackback costs \$899, but has a 10-year warranty. It's better than a chiropractor's fees, pain, and surgery—and hey, it looks cool, too. For more information, point your browser to http://www.zackback.com or call 800-748-8464.—JH



SpaceOrb

Vivistar Consulting

SpaceOrb is now available for the Mac, thanks to Vivistar. The SpaceOrb is a great general-purpose game controller that also accepts 3D input. The cute little orb on the controller is really a pressure-sensitive rubber ball; its sensors detect pressure on three translational axes and three rotational axes with 10-bit precision. Action gamers, that means you have six degrees of freedom so you can strafe, freelook, and rotate in your favorite 3D games—think of the orb as your virtual head. In games such as Unreal, Quake,

we're not in kansas trackball land anymore.

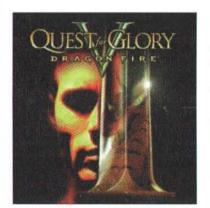
and Dark Vengeance, you can control your character with much more grace and fluidity than you

would using keyboard commands. In addition, six programmable buttons let you fire, jump, crouch, change weapons, use alternate fire, or carry out whatever command you set up. Although SpaceOrb is available from SpaceTec, Mac users need an adapter and the VOrb Input Sprocket to play Mac games with it. You can order the \$69 SpaceOrb bundle (shipping included) from Vivistar Consulting (http://www.vivistar.com, 602-483-3123), or if you already have the controller, you can purchase the Mac adapter and Input Sprocket bundle for \$24 (shipping included).—JH



Quest for Glory V: Dragon Fire Soundtrack

Sierra On-line



uest for Glory V: Dragon Fire is the most highly anticipated role-playing game of the year, and its spectacular panoramas immerse you in a fantasy world of men, maidens, monsters, and mayhem. Its soundtrack is equally spectacular. It bathes you in 18 original compositions by Chance Thomas, including nearly an

hour of film score-quality music that features a live orchestra and pristine digital samples. The clas-

MYSTERY, MAYHEM, AND MUSIC IN YOUR QUEST FOR GLORY.

000000000

sical orchestra creates moments of epic grandeur as you engage in heroic swordplay. Elsewhere, Near Eastern-influenced and Mediterranean-style airs portray the ethnic diversity of Silmaria, the fantastic world you inhabit. Ambient music, mostly in the New Age tradition, enhances the general atmosphere of the game. The Quest for Glory V Soundtrack, a hybrid Mac-PC CD-ROM, also includes a playable early demo of Quest for Glory V: Dragon Fire; a coupon good for \$5 off the purchase of the game; and a 12-page, full-color booklet of game art, photographs, and detailed liner notes from game designer Lori Cole and composer Chance Thomas. Featuring such pieces as "The Rite of Freedom," "Dragon Fire," and "Quest for Glory V: Overture," this CD is a great deal at \$12.95. For more information, stop by http://www.qg5.com or call 800-757-7707.—JH

S2/MidiLand 4030

MidiLand

esigned for audio enthusiasts who want a high-end system without the price, the award-winning S2/MidiLand 4030's tag of \$189.95 is just right. Street prices seem to be hovering around \$139.95, which makes this system even more cost effective. The S2/MidiLand 4030 is a four-piece stereo system

YOU, TOO, CAN FEEL LIKE ALICE IN MIDILAND. with two three-inch satellites, a subwoofer, and a full-featured control module. But—we all

want to know—what about power? Specifically, the S2/MidiLand 4030 produces more than 30w with less than a 0.1 percent distortion: The long-throw subwoofer delivers 15w RMS, which translates into low frequencies from 55Hz to 180Hz; the magnetically shielded satellite speakers deliver 7.5w each at frequencies from 180Hz to 18KHz. Also, the control module lets you adjust volume, balance, bass, treble, mute, and loudness, and is equipped for 3D sound. That's perfect for Mendelssohn and Metallica, or Prokofiev and Puff Daddy. To find out more about this major opus, call MidiLand at 888-592-1168 or check out http://www.midiland.com.—JH









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More than 9,000 airports and 30,000 navaids covering over 200 countries, territories, and islands. • Five accurate aircraft models (including single prop, dual prop, turboprop, and business jet) based on specifications and performance data from actual aircraft manufacturers. • Accurate aircraft cockpits and avionics, all in the correct proportions and layout from original aircraft. • Terrain system and global digital elevation model allow for realistic flight all over the world. • Fly at any time of day or year, in a variety of user-defined weather conditions, or by importing NOAA METAR weather reports. • Realistic voice air traffic control (ATC) interacts with you for ground control, tower, approach, departure, and regional center operations.

Designed for expandability. Look for future aircraft and scenery expansion packs, as well as end-user editing tools.
 Five scenery areas with continuous satellite imagery, covering 50,000 square miles of area.
 Integrated flight planner and aircraft load-out, allowing visual planning of cross-country flights and user-defined fuel, passenger, and cargo loads.
 Native 3D hardware support for Microsoft Direct 3D, 3Dfx Glide, Rendition Redline, NEC PowerVR, and Apple RAVE.
 Join up to 7 friends in an Internet flight party,

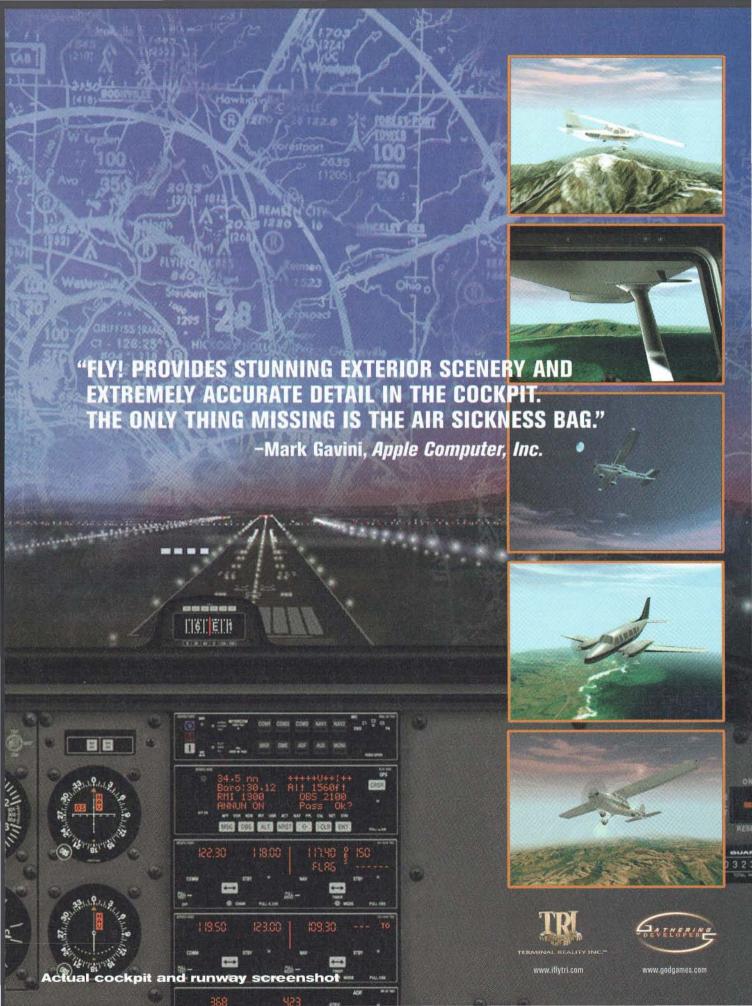
with text and full voice chat support.



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Week 1 Trim That Finder Flab

by Mark Simmons



FIND
RESEDIT,
Square One
Lite, and
Yank on The
Disc.



PARCOURSE

Clear the Clutter

Embarrassed by unsightly crashes? Can't afford to send your Mac to that fancy spa in Cupertino? Relax. We'll put your Mac on the happy path to health and prosperity.



Week 3 Peak Performance



We've all felt that nagging guilt. Eyeing your Mac's cluttered desktop, ruefully prodding its overstuffed Preferences folder, you pledge to lose that unsightly bulge and tone your applications until they're in fighting shape...someday. Well, now you can stop procrastinating and start getting your Mac in shape with our painless fourweek regimen of tune-ups and fat-trimming exercises. In less than 10 minutes a day, you'll work your way toward that lean, mean Mac you've always dreamed of, with a tight and tidy System Folder and washboard apps your peers will envy. Don't delay—your path to a better, fitter Mac begins today!



Illustrations by David Coulson

DEC/98 MacADDICT 33

week one



Finder Flab Inventory



Estimated Time: 10 minutes

Here's something you won't hear very often: We're asking you to turn *on* the Finder's processor-hogging Calculate Folder Sizes option. This will allow you to compile a profile of your Mac's disk space usage and zero in on the trouble spots. You can use the inventory form below to record the results and measure your progress; if you're reluctant to scribble on your cherished copy of *MacAddict*, copy the form or draw up your own version.

To start, open the top window of your Mac's hard disk. (We're assuming here that you have a single hard disk; if you have multiple disks or have partitioned your disk into multiple volumes, you'll need to repeat this process on each disk or volume.) Click the disclosure triangle next to the System Folder to reveal its contents, and do the same for any other folder you anticipate will require a detailed examination. Then turn on the Calculate Folder Sizes option, which you'll find in the Views control panel under System 7 or in the View menu's View Options dialog box under Mac OS 8. As

WEEK I:
TRIM THAT FINDER FLAB!

OUR MAC FITNESS PROGRAM BEGINS WITH A

LARD-FILLED SYSTEM FOLDER, PURGING REDUNOLD FILES WILL NOT ONLY FREE UP DISK SPACE,
AGEABLE. TO TRACK YOUR PROGRESS, WE SUGAND SET SIZE-REDUCTION TARGETS FOR YOUR

PROBLEM FOLDERS.

ONCE YOU'VE COMPLETED YOUR WEEKLONG
MAC LEAN. THROW OUT UNNECESSARY FILES AND
WATCH FOR PROLIFERATING PREFERENCES.

numbers appear, write them down on the inventory form, filling in blanks and adding entries for particularly pudgy folders. When you're done, turn off this performance-degrading option.

Next take a quick look at your desktop. If you have any folders lying around that you

suspect may contain a significant number of files, select their icons and choose Get Info from the File menu to find the total size of their contents. Finally, do a Get Info on the hard disk icon itself to determine the total heft of all its files and folders. Record this data on the inventory sheet.

Set size goals for your problem areas. While there are no hard-and-fast guidelines for how large your Documents or Control Panel folders should be, setting targets will give you valuable motivation-5MB here, 10MB there, and before you know it vou will have recovered 100MB of valuable disk space. Overall, you should try to cut the size of your hard disk's contents by at least 10 percent, though application and utility folders won't shrink much unless you start actively throwing programs away.





Estimated Time: 8 minutes

Today we're going to begin our trimming program by taking on some of the System Folder's ever-swelling subfolders. Spelunking in the bowels of the System Folder can be tricky—trash the wrong extension, and suddenly some vital feature cuts out. When in doubt, disable an extension or control panel rather than deleting it outright, then check back a week later—if you haven't noticed any ill effects, send it on a magical journey into the Trash.

Now it's time to weed out unwanted control panels and extensions. We suggest using the Mac OS's built-in Extensions Manager control panel, as it gives you extra information such as version number and package of origin. Once you've disabled the junk, restart (to make sure your Mac isn't broken) and make your first round of deletions from the Control Panels (Disabled) and Extensions (Disabled) folders. Likely candidates for deletion include long-forgotten shareware utilities and-depending on your needs and hardware setup-Applesupplied items such as modem and remote access software, QuickDraw 3D, speech recognition and synthesis, ColorSync, Web

‰Clip 'n' Save

FINDER FLAB INVENTORY

	Size	Target Size	Final Size
System Folder (total)			
Control Panels			
Extensions			
Fonts			
Preferences			
Other		2	
Other			
Apple Extras			
Applications			
Documents			
Internet			
Utilities			
Other			
Other			
Other			
Hard Disk (total)			

ı

sharing, and every printer driver except LaserWriter 8.





Estimated Time: 6 minutes

Now that you've slenderized your Control Panels and Extensions folders, it's time for the next round of System Folder streamlining. Start with the Printer Descriptions and Modem Scripts folders, which you'll find in the Extensions folder and/or at the top level of your System Folder—chances are you only need a couple of the dozens of printer and modem files in these folders.

While you're at it, look for orphaned folders; if you've ditched ColorSync, exorcised your speech software, and pruned the Location Manager, you won't need the ColorSync Profiles, Voices, Speakable Items, or Location Manager modules anymore. Likewise, if you've discarded the Apple Guide extension, you can recover a few hundred more kilobytes by purging some Guide files from the Extensions folder.

Lastly, there's the ever-overflowing

applications, trash 'em. Clear out the Preferences folder's File Sharing folder, too. It contains a bunch of files the Mac's file-sharing software generated—one for every volume or disk you've ever mounted while running file sharing. Each of these PDF files weighs in at 130K, and they're pure junk.





Estimated Time: 6 minutes

You've probably noticed how copies of SimpleText accumulate and proliferate, piling up willy-nilly in the nooks and crannies of your hard disk. But Apple's lovable text editor isn't the only such offender. In the age of multimedia and the Internet, Apple's MoviePlayer, Microsoft's Internet Explorer, RealNetworks' RealPlayer, and good old Internet Config are also prone to redundant installation. Make sure you've gotten rid of the extras by scanning for these apps with the Find command. (Because we prize efficiency over effort, we'll permit you to use a junk-hunting utility such as Maui Software's

Yank or Aladdin Systems' Spring Cleaning for this task.

One particular haven for duplicate software is the Apple Extras folder, the place where Apple's installers throw any extras and

any extras and helpful apps. Take a look in there and ditch those unwanted extras or installers for system software you've installed. You will also likely find duplicate copies of Apple utilities, such as Disk Copy, MoviePlayer,

Disk First Aid, and the AppleScript Script

Editor. Compare these to copies elsewhere on your hard disk, and keep the newest versions. When you've winnowed each down to a single copy, it's best to leave it right there in the Apple Extras folder—otherwise the next time you run an Apple software installer it might put another copy in there, and you'll have duplicates again.

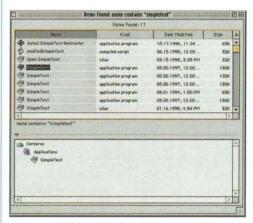




Estimated Time: 8 minutes

Wrap up the week with a quick stroll through the rest of your hard disk in search of pure junk. Now's as good a time as any to trash that big ol' shareware program you downloaded in 1995 and to throw out multimegabyte folders full of sample files and tutorials.

What you don't want to throw out permanently, you can always archive. Personal documents you haven't looked at in years, but that may come in handy if you ever



HOW MANY COPIES OF SIMPLETEXT can one Mac hold? Search your disk to discover the shocking answer.

resume work on the Great American Novel Database or find yourself on the receiving end of an IRS audit, are good candidates for retirement to the removable storage medium of your choice. Whether it be a Zip disk, SuperDisk, rewritable CD-ROM, or whatever, be sure to label your archive while you still remember what's on it.

Cooling Down

Our generously structured program lets you take Saturday and Sunday off to recuperate. But before you let that discipline slide, repeat the disk space inventory you performed on Day 1 and see how much flab you've eliminated. If you're still not happy with the results, you should make a more detailed survey of your hard disk's contents and be more disciplined about throwing away unnecessary apps and utilities. If all else fails, you might consider taking the plunge and converting your hard disk to Apple's new Mac OS Extended (better known as HFS+) format, the system software equivalent of liposuction.

Preferences folder. While there's doubtless all kinds of flotsam in there, it can be difficult and time consuming to spot the genuinely dispensable items. After all this hard work, you're entitled to cut corners. Use the Size header to scan for abnormally huge files and folders, and if you're certain they don't belong to any of your current

week two



The 10-Minute **Desktop Manager**



Estimated Time: 8 minutes

Your path to a more orderly Mac begins where your organizational flair shows most clearly—the desktop. If you're one of those superior specimens who habitually sweeps away desktop debris, then congratulations: you've earned a day off. But if you fall into the organizationally challenged category, then try these exercises to wrestle your desktop into manageable shape.

First and foremost, the desktop isn't a good place to store files. Check your Internet

> Internet control panel) and make sure that downloaded files end up in a dedicated folder rather than scattered across your desktop. It can be useful to keep documents that you're working on right there on the desktop for easy access, but once the excitement fades, shuttle them off into the appropriate storage folder. You can also put an aptly named folder, such as Projects, In Box, or Hot 'n' Hunky, on the desktop to store these files-of-themoment, thus keeping important items at your fingertips without making a

Then there's the issue of drag-anddrop icons. It's convenient to have aliases to oft-used apps and folders on the desktop so you can quickly drag files onto

them. However, application windows obscure such icons, so we suggest you install a shareware application-dock utility such as Square One, PowerBar Pro, DragStrip, or DragThing to store these handy aliases. Or gather them all into a single folder (perhaps a Mac OS 8 pop-up window) so stray windows won't obscure them.

Flex Your Apple Menu Muscles



Estimated Time: 6 minutes

Now let's take a look at your Apple menu. By default, this already contains an alias to your Control Panels folder, assorted Appleprovided assistants and shortcuts, and utility programs of varying usefulness. With some fine-tuning and careful management, this menu can become a powerful tool in its

To start, make an alias to the Apple Menu Items folder within your System folder, and put this in the Apple menu itself. You won't be able to access its contents directly from the Apple menu—that would be just too horribly circular-but you can jump in and change the menu's contents whenever the whim seizes you. Next add an alias to your hard disk (or disks), so you can browse their contents in hierarchical menu form.

Take a few minutes to create alias short-

cuts to all your most frequently used applications and folders. It's easy to put this off, but once you've gone to the trouble of making all those aliases, you'll save minutes a day you would otherwise have wasted in navigation. To make the process more painless, use Mac OS 8's Command-Option-Drag shortcut to put selected aliases into the Apple Menu Items folder. Finally, group these aliases into organized subfolders-Applications, Internet, Utilities, Games, Servers, and such.

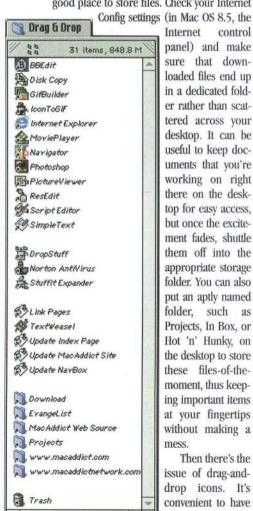




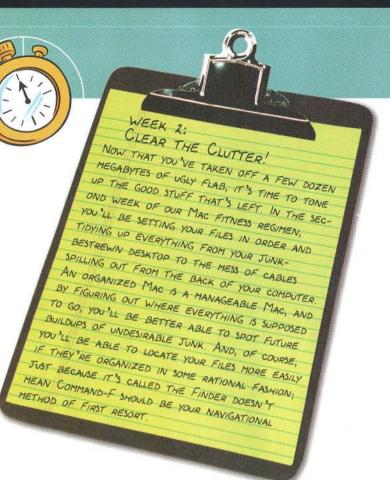
Estimated Time: 7 minutes

Taken a look inside your Fonts folder recently? If you've been doing anything related to graphics, or even idle Web surfing, odds are you have dozens of mysterious font files kicking around in there. In the event that you need to clean house, temporarily disable fonts, reduce your font menus, or transfer fonts to another machine, you'll have a tough time figuring out which fonts go with what.

The trick here is to organize your fonts into meaningful suitcases. You can consolidate font suitcases by dragging them into one another, then giving the resulting suitcase a meaningful name such as MacAddict House Fonts or Gimmicky Art Fonts. For example, Microsoft Internet Explorer



A HANDY POP-UP WINDOW CAN STORE drag-and-drop aliases. Unlike desktop icons, these won't disappear under other windows.





Thus these fonts defy your consolidating measures. Though you can't stop them from cluttering up your Fonts folder, you can use the Finder's labels to color-coordinate them with the font suitcases that contain the corresponding bitmap fonts.

Clean Up Your Online Act



Estimated Time: 6 minutes

The same principles of efficiency and organization apply to your online behavior. In this age of Web surfing and email exchanges, you face as much of an organizational hazard from unruly bookmarks and haphazard email management as from aliases run amuck. Though filing months of email is beyond the scope of our 10-minute exercise format, you can take some small steps today for better online organization tomorrow.

First, take a look at your Web browser's bookmarks (or favorites). Some of these may be obsolete, or temporary bookmarks that have long since served their purpose. You can group most of those you want to keep into topical subfolders—for example, News Sites, Shareware Archives, and Mom, Stay Out. Finally, add a separator line at the bottom of your bookmark list so you can distinguish temporary bookmarks from permanent menu fixtures.

If time permits, proceed to your email client. One glance at the contents of your in-box should suggest some useful possibilities for subfolders—Urgent, Online Commerce, Family Matters, Humorous Mass Mailings, and the like. Once you've created these folders, you can stow incoming mail under the appropriate category. For extra credit, try setting up mail filters or actions for the more readily automated categories, such as Stupid Suggestions From Boss.

DAY 5

Master Cable Mess



Estimated Time: 5 minutes

To close out the week's festivities, it's time for you to get a little physical exercise by straightening out the mess of cables behind your Mac. Untangle crossed cables, verify that you're making the most of your power strips, and rein in excessively long cables by tying up the extra yardage with twist ties or rubber bands. Cables you're likely to plug and unplug frequently should lie on top, while permanent connections such as your Mac's power cable can rest peacefully on the lower levels of your miniature spaghetti junction. Now go forth and tame the wilderness that lurks on the nether side of your Mac.

comes with a package of free fonts intended for cross-platform Web browsing—Arial, Arial Black, Comic Sans MS, Courier New, Georgia, Impact, Monotype.com, Times New Roman, Trebuchet MS, Verdana, and Webdings—all of which you could merge into a single Evil Empire Fonts suitcase.

While you can transfer bitmap fonts and TrueType outlines from suitcase to suitcase, you can't stow PostScript font files—due, we're sure, to immutable laws of physics rather than obscure political factors—in font suitcases.

	23 items 848.6 MB aveilable		5
THE RESERVE OF THE PARTY OF THE	Cate Medified	Expension	121
Name Ce Capitals	Fri. Aug 14, 1998, 12:00 PM	Essential	
Charcoal	Thu, Aug 20, 1998, 12:00 PM	Essential	
Chicago	Tue, Sep 15, 1998, 3.07 FM	Essential	
Courier	Tue, Sep 15, 1998, 3:07 PM	Essential	103
Ca Godget	Fri. Aug 14, 1998, 12:00 PM	Essential	
My Genove	Thu, Aug 20, 1998, 12:00 PM	Essential	2554 2554
Ca Helvetica	Fri, Aug 14, 1998, 12:00 PM	Essential	107
Ch Mineco	Thu, Aug 28, 1998, 12:00 PM	Essentini	
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Ca Techno	Fri, Aug 14, 1998, 12:00 PM	Essential	500
Textile	Fri, Aug 14, 1998, 12:00 PM	Essential	84
Ca Times	Fri, Aug 14, 1998, 12:00 PM	Essential	251
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Osako	Tue, Aug 18, 1998, 12:60 PM	Hot	
Ceaks Piono	Tue, Sep 15, 1998, 3:07 PM	Hot	57
(h Seoul	Mon, Jul 21, 1997, 12:00 PM	Hut	53
Taipei	Tue, Sep 15, 1998, 3:07 PM	Het	F.2
AdLibFon	Fri , Aug 30, 1996, 6:47 PM	Cool	
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12 Bodonflot	Thu, Feb 22, 1996, 12-52 AM	Cool	132
8 Sadon Bellita	Thu, Feb 22, 1996, 12:32 AM	Cool	le:
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BadonPes	Thu, Feb 22, 1996, 12:32 AM	Cont	831
& BuresGroFivThr	Thu, Feb 22, 1996, 12:32 AM	Cool	500
& BuresGrsOneFiv	Thu, Feb 22, 1996, 12-32 AM	Cool	
& BuresGroOneSev	Thu, Feb 22, 1996, 12:32 AM	Cool	355
& BuresGroOceThr	Thu, Feb 22, 1996, 12-32 AM	Cost	
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GeramBolCon	Thu, Jul 11, 1996, 11:11 AM	Eool	18

FINDER LABELS COME IN HANDY for grouping fonts and associating PostScript font files with their bitmap font suitcases.

OPTIONAL CROSS-TRAINING EXERCISE Training for Gaming

ere's a special performance-training exercise for serious gamers, in which we take advantage of the Extensions Manager's ability to create and switch extensions sets for gaming-specific system configurations. If you're eager to eke out the last measure of horse-power for those Marathon blasting sessions, you can substitute this step for one of week three's more mundane workouts.

To begin, create a new extensions set; you can use the Duplicate Set button to create a copy of your everyday extensions lineup. Turn off memory-hogging extensions and control panels that don't contribute to your goal of peak gaming performance.

Some of Apple's standard control panels, such as Keyboard and Date & Time, are harmless configuration utilities that don't detract from performance. Your Extensions folder also houses a variety of shared libraries that don't load unless they're needed and therefore won't slow down your system. But items such as ColorSync, Energy Saver, Apple Guide, Desktop Pictures, Apple Menu Options, AppleShare, File Sharing, Control Strip, PC Exchange and Mac OS Easy Open (Mac OS 8.5 combines these two into File Exchange), and speech software all consume valuable memory, and your special gaming set should disable them. Similarly, you can turn off all networking and printing software for your dedicated gaming sessions, and deactivate fancy third-party utilities, including Kaleidoscope, Action Files, and antivirus software.

So what should you keep? Don't disable important control panels like Memory, Extensions Manager, and Monitors & Sound, and don't disturb vital extensions like Appearance, Apple's CD-ROM software, QuickTime, Sound Manager, and graphics acceleration. Let the various Game Sprockets libraries stick around, and leave all those QuickDraw 3D extensions alone if your games require them. If you plan on doing any online gaming, you might also want to create an alternate extensions set that includes your essential Internet, TCP/IP, and remote access software.

Once you've crafted your customized extension set, you can switch to this set and restart to turn your Mac into a fierce gaming machine. When the fun is done and it's time to get back to work, switch to your regular set and everything will be back to normal.





General Performance



Estimated Time: 3 minutes

As a gentle warm-up for this week's exercise schedule, we'll start with a few general-purpose performance tweaks. You've probably heard most of these warnings before, and you'll find more such advice in our "Accelerate OS 8" feature (Mar/98, p36). Such spartan measures as eliminating startup screens and desktop pictures, and purging custom icons, we'll leave to your individual conscience-even the strictest diet should leave room for chocolate éclairs, provided vou compensate for them elsewhere.

You can speed up the startup process by using the Startup Disk control panel to select your favored volume. Even if you don't have any other hard disks to choose from, your Mac will take a minute to scan for valid startup disks unless you've specifically indicated your preference in the control panel. This is one of the general settings that gets lost when you zap your PRAM, so if you've used this troubleshooting measure recently, you should go back and reset the control panel.

You can also speed things up a bit by turning off unused networking services-File Sharing and Web Sharing if you're not using these features, and AppleTalk (via the Chooser) if you're not connected to a local network. And there's no reason not to turn off the Trash's "Warn before emptying" option (configured via the Trash's Get Info dialog box) and the General Controls control panel's irritating "Warn me if computer was shut down improperly" option.



Plug-in Pushups



Estimated Time: 5 minutes

These days, no application is complete without a selection of optional feature-extending plug-ins. Adobe Acrobat, Photoshop, QuarkXPress, BBEdit, FileMaker Pro, Internet Explorer, Netscape Navigator, and many other common apps include folders for plug-ins, extensions, and add-ons. Yet every one of these must load along with the application, slowing down application launches and sometimes consuming extra

memory. Go through your applications' plug-in folders and weed out the ones you seldom use; if you don't feel like trashing a plug-in outright, move it to a disabled folder for a rainy day. This is especially helpful for the constitutionally unstable species known as the Web browser, which will not only load faster and require less memory, but will be much less crash prone as a result.





Estimated Time: 9 minutes

WEEK 3:

THOSE BONES, WORKING EACH

YOUR MAC IS IN PEAK CONDITION.

WE'LL MAKE GOOD USE OF MEMORY,

SHOW YOU HOW TO GET ABOUT FASTER

ONLINE. WHILE NOTHING BEATS A

NICE RAM UPGRADE AND A PROCESSOR

TRANSPLANT, OUR PERFORMANCE-TRAIN-

ING COURSE WILL HELP YOU MAKE THE

MOST OF WHAT YOU'VE GOT.

SPEED UP APPLICATION LAUNCHES, AND

SUBSYSTEM AND APPLICATION UNTIL

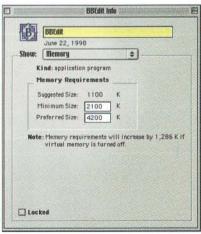
PEAK PERFORMANCE! TWO WEEKS INTO OUR GRUELING

REGIMEN, YOUR MAC SHOULD NOW

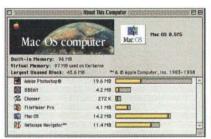
BE LEAN AND TRIM. THIS WEEK, WE'RE GOING TO START PUTTING SOME PERFORMANCE MEAT ONTO

Memory is a scarce and precious commodity, but just a little extra RAM often goes a long way toward making your favorite applications run smoother and faster. In today's workout, we're going to beef up the memory portions assigned to your workhorse apps. To change an application's memory allocation, make sure you've quit it, then select it in the Finder and perform a Get Info on it (under Mac OS 8.5, you'll then need to switch to the Memory screen). Here you'll be able to change the Minimum and Preferred Size of the application.

Unless vou've already spent some time fine-tuning memory allocations, your applications probably still have their factorydefault memory settings. As a rule of thumb, these are always a bit on the low side, since developers thoughtfully try to stop their creations from hogging all of your spare RAM. But for those applications you use most often, be they Photoshop, FileMaker Pro, Microsoft Word, or SimpleText, you can afford to be a bit more generous. Set the Preferred Size to a little more than the listed Suggested Size-a couple of extra megabytes is good for a typical application, while a few hundred kilobytes will suffice for a lightweight like SimpleText. While you're at



IN MAC OS 8.5, go to the Memory tab of the Get Info window to give your applications the memory boost they deserve.



ABOUT THIS COMPUTER lets you check whether your apps have adequate legroom. Turn on Balloon Help and mouse over one of the bars to see the precise numbers.

it, you can bump up the Minimum Size a bit too, making sure the application won't launch unless it has enough memory for you to work productively.

If you're worried that you've overdone the memory boosting, launch the application in question and fiddle about for a few minutes. Open a bunch of documents, copy and paste big chunks of data, and open a few windows. As you do so, open the About This Computer window (available from the Apple menu when you're in the Finder) and watch the application memory display. If the colored portion of the bar, representing the amount of allocated memory that's actually in use, remains substantially less than the total length of the bar, then you can probably afford to trim the memory allocation down a bit. Otherwise, you're better off erring on the side of generosity.



Though the speed of your online access depends more on your modem or network connection than on your Mac's capabilities,

you can perform a few simple exercises to get those Web pages loading faster. For more ideas along these lines, see "Make Your Browser a Lean, Mean Web Machine" (Jan/98, p46).

For starters, you can save a lot of time by taking advantage of your Web browser's URL autocompletion features. The Smart Keywords feature recently added to Netscape Navigator makes this a bit more of a gamble than before-type macaddict/news and you'll still end up at http://www.macaddict .com/news, but shareware now takes you to a subsection of Netscape's portal site rather than to http://www.shareware.com.

Internet Explorer fares better in this department; not only does it (thus far) dutifully tack on http://www. and .com when you enter a naked keyword, but its Auto-Complete feature automatically enters previously visited URLs as you type them. In fact, it also autocompletes the titles of pages in the Favorites menu-so if you bookmark http://gundam.anime.net, open the Favorites window, and rename this bookmark Gundam, you can automatically return to the page just by typing Gundam in the browser's Address field. In effect, you can define your own easy-to-remember keywords.

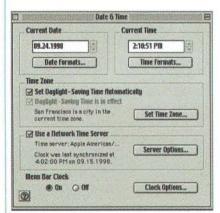
Once you've mastered the art of speedy addressing, you can also cut some corners to accelerate the actual page-loading process. For modem users, turning off images can be a huge time-saver. The latest browsers have lost Netscape 3.0's convenient menu command for turning image loading on and off, but the option remains as a preference setting in all Web browsers. The time you'll save in imageless browsing more than makes up for the hassle of turn-

ing this preference on and off. Less drastically, you can disable fancier features such as Java, JavaScript, and style sheets; Internet Explorer even gives you the option of ignoring animated GIF images.



Now that your applications are launching and running in record-breaking time, you can make your clock-watching that much more accurate by setting your Mac's internal clock. For some reason, a Macintosh capable of ray-tracing 1,000 polygons with superhuman precision can't keep time as accurately as a \$5 watch, so unless you've set your Mac's internal chronometer lately.

it's probably off target by several minutes. First make sure your Mac knows where it is. You can set your current location, and hence your time zone, in either the Date & Time control panel or the old-fangled Map control panel. Then make sure you have daylight saving time set appropriately. This one-



MAC OS 8.5'S IMPROVED DATE & TIME control panel includes automatic daylight saving time computation and network-based clock synchronization.

hour advance takes effect on the first Sunday in April and ends on the last Sunday in October-thus you should turn off the setting on October 25, 1998, and reactivate it on April 4, 1999. Finally, set that clock. Check your phone book for an automated current time hotline, or use a utility such as Kirill Levchenko's shareware Vremya to look up a Network Time Server over the Internet.

Mac OS 8.5's improved Date & Time control panel makes this whole process almost effortless with automatic daylight saving time calculation and built-in Network Time Server support. Mac OS 8.5 also saves date and time settings in a preference file so they don't get lost when you zap your PRAM.



week four



Build a Better Desktop File

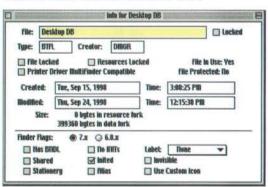


Estimated Time: 6 minutes

Though this procedure is sometimes employed (usually with little success) as a troubleshooting technique, rebuilding your Mac's invisible desktop files as a matter of habit doesn't hurt. Aside from the arguably psychosomatic benefits of a perennially fresh desktop file, a desktop rebuild frees up some disk space and makes sure your applications' drag-and-drop and file-opening capabilities are up to date.

You can perform a superficial desktop rebuild by holding down the Command and Option keys at the end of the startup process or when you're mounting hard disks or inserting removable media. But to make sure all the old data gets cleaned out, you should delete the old files before generating fresh ones. Many commercial disk utilities can do this, as can Micromat's freeware TechTool. You can also use a resource editor such as ResEdit to make





USE RESEDIT'S GET FILE/FOLDER INFO COMMAND to render your invisible desktop folders visible, then stick them in the Trash and generate new ones.

the invisible desktop files visible, then drag them to the Trash and restart. The files in question are named Desktop DB and Desktop DF, and they appear at the top level of each hard disk.



Estimated Time: 4 minutes (plus extended coffee break)

This one requires a little time and effort,

but it's worth it. Defragmenting or optimizing your hard disk reassembles the scattered fragments of your files, and physically reorganizes your disk's contents according to a more logical scheme so your Mac can access and load them more carefully. While fragmentation won't produce any noticeable ill effects until it gets pretty severe, regular defragmenta-

tion will give you the comfort of knowing that your Mac is all it can be. This procedure requires a commercial disk maintenance utility such as Symantec's Norton Utilities or Alsoft's DiskExpress Pro and PlusOptimizer.

Today's modern hard disks can take quite a while to defragment, though the extra disk space you cleared in the first week should speed up the process a bit. We suggest you start the process, then take a walk over to the water cooler or do a few laps around the breakfast table. If you have multiple hard disks or volumes, you can rotate your defragmenting routine and do a different one each month.



Build Up Your Backups



Estimated Time: 8 minutes

Like flossing, this is something you've probably heard you should do several times a day, and no whining about how you'll be eating again in 20 minutes or complaints that you've developed tennis elbow from swapping floppies in and out. Well, we're not dentists, but as your Mac maintenance advisers we advise you that infrequent but regular backups are better than a onetime orgy of archiving you'll never be able to repeat. Pace yourself, prioritize, and identify the key files you could never replace simply by reinstalling all your applications and system software.

On balance, it's not worth backing up applications and system files. If disaster strikes, you might as well just reinstall them from the original disks or download them from the appropriate Web sites. No, the things you can never recover are personal data such as archived email, address books, and handmade documents. Exercising discretion can take much of the hassle out of the backup process—rather than archiving your Web browser and its multimegabyte

cache folder, just grab a copy of its oh-soprecious bookmarks file.

Be sure to check the System Folder for vital application data, too. Email clients and Web browsers often keep important settings and data files in the top level of this folder or in the Preferences folder, rather than in the application's own folder. While you're at it, we suggest you also back up system settings such as Appearance, Date & Time, Display, Finder, Internet, Sound, and TCP/IP Preferences—depending on your system software version and configuration, of course.

When you've gathered your precious personal belongings and copied them onto a Zip disk, burned them onto a CD-ROM, or divvied them up among a brace of floppies, be sure to label your backup. Note the contents of the backup disk and jot down the date. There—you're all done!





Estimated Time: 6 minutes

Running a tight ship will only get you so far. Every now and then, your Mac may need to bulk up to stay competitive. Since we've toiled week after week to round up the coolest new shareware goodies and commercial updates for our monthly CD-ROM, we'll put aside modesty and recommend that when you get your mitts on each new issue, you pop The Disc in your CD-ROM drive and give it a spin. Serious efficiency fiends needn't trifle with the frivolous fancy interface or screen the self-indulgent staff video in their haste to inspect the good stuff.

Using The Disc as a first stop for shareware sampling does have a couple of advantages. For starters, you'll save plenty of scavenging and downloading time by checking out our monthly sampling. And since these goodies are so readily accessible, you can



OUR CD-ROM'S MULTIMEDIA INTERFACE ain't just for show—the Software Index screen gives you readily browsable descriptions of each item.

delete them with impunity, secure in the knowledge that reinstalling them is a matter of a few mouse clicks. Thus do we reinforce the good habits of the disciplined Mac owner.





Estimated Time: 8 minutes

Of course, the inevitable time lag prevents us from putting all the very latest releases on the monthly *MacAddict* CD-ROM. To stay on top of late-breaking developments in the weeks since we burned The Disc, turn to a couple of hot-to-trot software update Web sites.



AT PRESS TIME, APPLE WASN'T CHURNING OUT system software updates at its usual breakneck pace. We guess that's a good thing.



VERSIONTRACKER'S COMPREHENSIVE UPDATE LISTINGS make it easy to keep your software current.

For system software updates, check the Apple Software Library's Recent Changes page at http://www.info.apple.com/ftp.newfiles.html. Here you'll find all the latest bug fixes and freebies from Cupertino's tireless research labs. Then mosey on over to VersionTracker at http://www.versiontracker.com for a laundry list of third-party updates. Staying current with the latest versions of your favorite applications and utilities is an important aspect of maintaining your happy, healthy Mac.

Technology editor Mark Simmons thought he was running a pretty low-fat Mac, but he still lost 120MB on the MacAddict Insta-Fast diet plan.



OF TOMB
RAIDER II and

Red Jack:

The Disc.

Revenge of the Brethren, on



ard-core gamers let down by last year's slim pickings and slow-to-

market releases should strap on their 3D graphics accelerators, hold tight to their joysticks, and prepare for a wild season of revived Mac gaming action. Apple's back and focused on reclaiming its share of the gaming industry through high-profile keynote commitments, amped-up hardware,

restored game developer relations, and the dawning of a USB civilization that's destined to end game controller apartheid forever.

The Mac games revival means that this holiday season you'll see 22 jaw-dropping, eye-popping, gotta-get-'em games that will leave you drooling all over your holiday wish list. With so many great games to choose from, you need our seasonal guide to cut through the hype and get the straight dope on which of this season's scorchers are must-haves or maybe-

laters. Feast your eyes on the hardware hotties you need to enhance every aspect

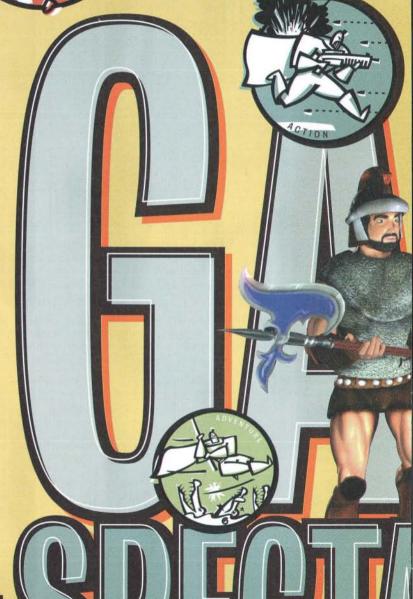
of your gaming experience, from polygons and pixels to sounds and sprites.

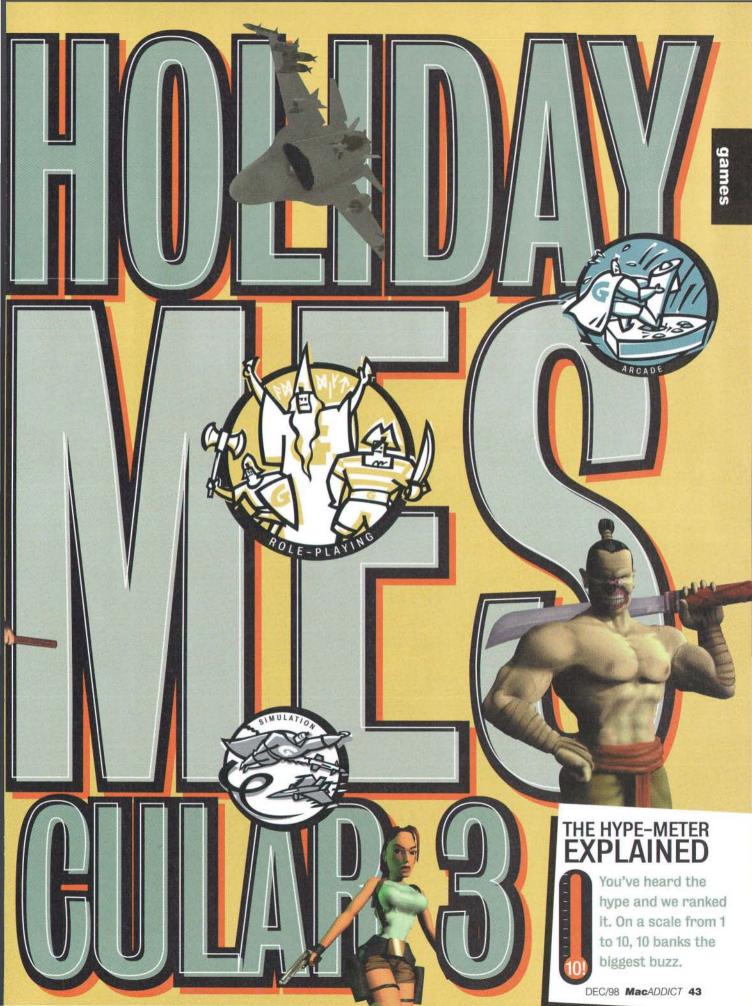
Now let's open the gates and let the games begin.

BY JENNIFER HO! HO! HO!
ILLUSTRATIONS BY HENK STOLKER

HOW STELLA GOT HER GAMES BACK!

This season and beyond, leave your fears at the keyboard and kick some serious butt!







Dark Vengeance Availability: November 1998

Price: \$49.99 Cast: Gladiator, Trickster, and Warlock Company: MacSoft, 800-229-2714, http://www.wizworks.com/macsoft

Plot: According to an ancient prophecy, a race of dark elves that was long ago imprisoned under the earth by your people (the Karmacs) is destined to ascend to the surface once again and wreak vengeance. The prophecy starts to unfold when an eclipse, engineered by a diabol-

ical sorcerer, blots out the sun and enshrouds the planet in darkness, providing the plotting elves with the perfect cover for escape. Your goal as one of the three characters in Dark Vengeance is to prevent the elves from making their escape and reaping revenge. In the process of trying to block the advancing hordes, you have to make your way through a maze of dungeons and haunted forests in search of the elves' source of power. Dope: Dark Vengeance will dethrone 2D Diablo and become the new king of dungeon crawlers. This long-awaited thirdperson title with role-playing elements throbs with substance and action. Expect graphics artistry throughout.



Tomb Raider II Availability: October 1998

Price: \$49.95

Cast: Lara Croft and her two breasts-oops, guns Company: Aspyr Media, 888-212-7797, http://www.aspyr.com

Plot: Tomb Raider II, the second chapter in the Lara Croft saga, has the buxom brunette racing snowmobiles through Tibet and speeding down the canals of Venice in search of the Dagger of Xian, which is said to possess the power to make its owner invin-

cible. Lara has to find the dagger before a band of nasty monks do, or you'll miss out on the gratuitous shower scene at the end. Game tip: At the Great Wall, Lara encounters a pair of rolling boulders. If you put her in the right spot, she'll safely fit between

them (making her stand sideways won't help her fit-just think about it). Dope: Tough puzzles will challenge hard-core gamers and discourage casual players, but the game thrives on sheer cybersex appeal alone. Still, can Lara's heaving bosom and loud grunts be considered Mac-PC feature parity?





Availability: September 1998 Price: \$49.99 Cast: Skaarj, Brutes, Krall, the nice Nali, Titans, and mo ugly beasties Company: MacSoft, 800-229-2714,

http://www.wizworks.com/macsoft

Plot: Set in a sci-fi environment, the story lands you in a crashed prison ship on a brutal planet where the Skaarj reign over the native Nali. The goal is to escape with your life, but the Skaarj and their acolytes are nasty, reptilian killers, so don't expect tea parties and talking rabbits—this ain't no Alice in

Wonderland adventure. Once you finish the single-player levels, you can still frag your friends online or via LAN. If you don't want to do that, you can play against the AI (artificial intelligence) bots in death-match mode.

Dope: Unreal kicks butt, plain and simple. As one of the two biggest shooters to hit both the Mac and PC this year, it sets the new standard for 3D action gaming. This game should have shipped with a 64MB DIMM, because the mind-blowing graphics demand it. If you can't cut the hardware requirements, don't get it.





Redneck Rampage

Price: \$49.95

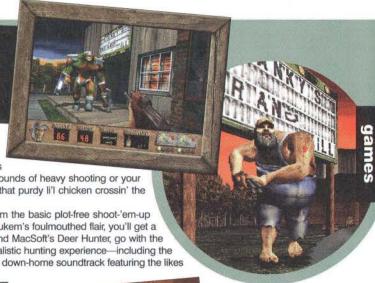
Cast: Leonard, Bubba, rednecks, and even more rednecks Company: Logicware,

888-564-4245, http://www.logicware.com

Plot: This shooter gives the phrase going postal a new definition. By belching, swearing, and shooting neighbors, Bubba and Leonard break every rule in Emily Post's etiquette book as you take them on a shoot-'em-up hunt in Hickston, Arkansas. Omnipresent weapons and six-packs

litter the road, but you'd better lay off the beer and moonshine during rounds of heavy shooting or your ability to aim will be seriously impaired. And you wouldn't wanna miss that purdy li'l chicken crossin' the road, would va?

Dope: Frankly, the graphics don't dazzle, nor does gameplay stray from the basic plot-free shoot-'em-up variety. But at least the game has a sense of humor. If you liked Duke Nukem's foulmouthed flair, you'll get a kick in the pants out of Redneck Rampage. Given a choice between it and MacSoft's Deer Hunter go with the rampaging rednecks, because while Deer Hunter may give you the more realistic hunting experience-including the long, boring waits-Redneck Rampage gives you the action. Plus, you get a down-home soundtrack featuring the likes of Moio Nixon and Beat Farmers.





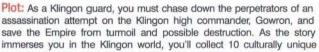
lingon Honor Guard

Availability: Q1 1999

Cast: Klingons and more funky aliens than would fill the

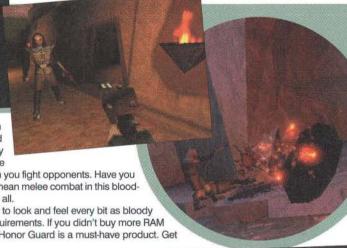
Mos Eisley Canteen Company: MacSoft, 800-229-2714.

http://www.wizworks.com/macsoft



weapons—such as the D'k tagh knife and the Bat' leth blade—with which you fight opponents. Have you ever fragged anyone with cultural artifacts before? Klingon family values mean melee combat in this bloodpumping game, which promises lots of super gory fragfests for one and all.

Dope: Klingon Honor Guard is based on the Unreal engine, so expect it to look and feel every bit as bloody and adrenaline-inducing as Unreal. You can also expect high system requirements. If you didn't buy more RAM or a 3D graphics accelerator for Unreal, then forget it. If you did, Klingon Honor Guard is a must-have product. Get out your armor-today is a good day to die. K' plah!



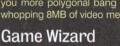
FAST-ACTION HARDWARE

MacMagic

Price: \$99

Company: Village Tronic, 800-932-6442, http://www.villagetronic.com

Voodoo for the Mac isn't new, but this Voodoo-based 3D graphics accelerator gets you more polygonal bang for the buck with a whopping 8MB of video memory.



Price: \$299 Company: Micro Conversions, 877-986-4276, http://www.microconversions.com It's here, it's fast, and it freakin' flies. Game Wizard is a Voodoo2 3D graphics accelerator for the Mac. With two texel units, it

PowerCube Plus

rocks those multitextured maps.

Price: \$149.99

Company: Altec Lansing, 800-258-3288, http://www.altecmm.com

The gaming experience just isn't complete without an awesome sound system. How else are you going to hear Lara's grunts? This system rocks your Mac with tunes to frag by.



Mac Blackhawk

Price: \$44.99 Company: Gravis, 800-535-4242,

http://www.gravis.com The Blackhawk is one of the

best general-purpose joysticks for all your gaming pleasure. It fits oh so smoothly in just about everyone's hand.



Gravis GamePad and GamePad Pro USB

Price: \$29.99 (each)

Company: Gravis, 800-535-4242, http://www.gravis.com These gamepads take a lickin' so you can keep on twitching in your trigger-happy games. Check out the USB model for iMacs, too.









Availability: November 1998 Price: \$49.95

Cast: Terrans, Zerg, Protoss

Company: Blizzard, 800-953-7669, http://www.blizzard.com

Plot: This space saga revolves around three species-Terran, Zerg, and Protossthat compete for survival and dominance. You must proceed through three singleplayer campaigns, each from a different species' perspective. Gameplay isn't about messin' up a bunch of aliens—it's all about learning three different playing styles, adopting three different strategies on a tactical level, and seeing that every story has different truths. Like most big titles this year, Starcraft offers online multiplayer gaming via Blizzard's Battle.net (http://www.battle.net). And if that doesn't satisfy your battle lust, use Starcraft's built-in campaign editor to create new single-player missions and multiplayer maps, which are limited only by your creativity. Look for the Starcraft expansion pack Brood War early in 1999.

Dope: Starcraft, which continues to sell more than a million copies on the PC side, is probably the best strategy game of the year. It offers super slick gameplay and graphics, not to mention the best cut scenes.



Availability: Q1 1999 (give or take a few months...)

Cast: Terrans, Zerg, Protoss

Company: Blizzard, 800-953-7669, http://www.blizzard.com

Plot: In Brood War, the upcoming expansion pack for Starcraft, the Zerg are torn apart, the Protoss have begun rebuilding their home world, and the Terran Emperor must deal with the rising power of the woman he betrayed-Kerrigan, Zerg Queen of Blades. You just know the Terrans are in for it. On the Protoss side, the Dark Archon of the Protoss possess these Psionic abilities: feedback (depletes a target of all its energy), shockwave (stuns and paralyzes all organic units in an area), and mind control (forces units to succumb to this spell). Dope: Brood War will be hot. It has six new units: Terran Valkyrie and Medic; Protoss Corsair

and Dark Templar; and Zerg Devourer and Lurker. Expect stunning gameplay, gorgeous dynamic coloring, and frenetic missions against the Zerg-if it ever ships. Starcraft was delayed for many months before it was finally released. We hope Brood War doesn't suffer a similar fate.





Availability: Q1 1999 Price: TBA

Cast: 12 civilizations, from Assyria to Yamato Company: MacSoft, 800-229-2714, http://www.wizworks.com/macsoft

Plot: In Age of Empires, you control one of 12 civilizations, each with its own strengths and weaknesses. What makes gameplay so intriguing is that each civilization has its own version of a metaphorical tree of developed technology, which forces you to alter your strategy based on the civilization you play. As you proceed, you navigate your way through the Stone, Tool, Bronze, and Iron Ages. The game uses 3D terrain, which means your elevation affects your speed and determines whether you get bonuses (for being high up) or penalties (for being down low) during combat.

Dope: OK, you're thinking this game sucks if Microsoft published it first, but Age of Empires is actually a fantastic real-time strategy title that combines the best elements of Civilization II, Warcraft, and Command & Conquer.





ization II Gold Edition

Availability: October 1998 Price: Upgrade price TBA

Cast: The best and brightest of human civilization

Company: MacSoft,

800-229-2714, http://www.wizworks.com/macsoft

Plot: Civilization II, Sid Meier's classic turn-based strategy title and best-selling Mac game, has finally gotten a makeover. What's new? The Gold Edition features a multiplayer option for Internet, modern, LAN, or serial gameplay. Plus, you get over 35 new scenarios in the add-on packs, Conflicts in Civilization and Fantastic Worlds. Strategy gamers will love the challenge presented by scenarios such as the American Civil War, Jihad, and After the Apocalypse.

Dope: Civ II was a best-seller because of its cerebral, humanist nature. MacSoft continues to expand the landmark game that started the whole control-your-empire-as-god genre by extending its scope to fantasy worlds

and specific historic events.





Total Annihilation

Availability: Late November 1998 Price: \$49.99

Cast: The Core and the Arm—or is that the Arm and the Core?

Company: MacSoft, 800-229-2714, http://www.wizworks.com/macsoft

Plot: Fire up this real-time strategy game and you'll find yourself sharing a vicious 4,000-year-old bloodbath with an immoral government known as the Core, and the fierce band of rebels, called the Arm, who vow to bring it down. You can play on either side, but you should know that the Core didn't win its enemies simply by raising taxes; the wicked power mongers created a national allegiance to the Core by assimilating its citizens into robotic machines. Like many strategy games, all Applibilation requires, you to manage resources.

Total Annihilation requires you to manage resources, research high-tech weaponry, and confront opponents in either single-player mode against the AI or multiplayer mode. Here's a tip: Layer your defenses—don't scatter them all over the map. And don't use a thin line of defense, or you'll get overrun.

Dope: This is a strategist's strategy game, not a Command & Conquer clone as you might think. Still, in head-to-head competition with Starcraft, it will be a close race.

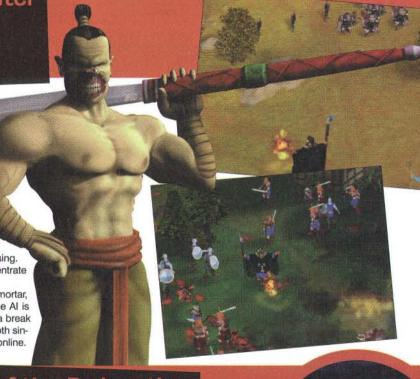


Myth II: Soulblighter

Availability: December 1998
Price: \$49.99
Cast: Dwarves, Berserks, Mauls, Herons, exploding chickens, and more
Company: Bungie Software Products, 800-295-0060, http://www.bungie.com

Plot: Myth II: Soulblighter definitely ranks as the most anticipated sequel this year-who didn't wonder what happened to Alric and Soulblighter at Myth's conclusion? In Myth II, Alric is now king, but Soulblighter lives, and he's got an ugly plan up his sleeve and enough minions to carry it out. Bungie's been pretty secretive about the plot, but its publicity engineer leaked something about another fallen lord who may turn from the Dark side to join the Light, guardians of all that is good. A lot of Myth players only duke it out on multiplayer bungie.net (http://www.bungie.net), but that doesn't mean the single-player story line is any less engrossing. In fact, the new one-click interface lets Myth players concentrate on the single-player story instead of fussing with keys.

Dope: Myth veterans will have a blast with all the dwarves, mortar, explosions, and new characters throwing fireball spells. The Al is much better and the mesh is four times finer. Newbies get a break with the new one-click interface (available as an option in both single-player and multiplayer modes), but they'll get creamed online.





Star Trek: Birth of the Federation

Price: TBA
Cast: Klingons, Ferengi, Cardassians
Company: MacSoft, 800-229-2714,
http://www.wizworks.com/macsoft

Plot: Birth of the Federation is a turn-based strategy title set in the wildly popular universe of Star Trek: The Next Generation. You take charge of the Federation or one of the diverse races from the television series, such as the Klingons, an orderly but aggressive warrior society; the Ferengi, capitalists in the tradition of Adam Smith; or the Cardassians, a strict hierarchical society with totalitarian attributes. But dominating your sector of the universe isn't easy, since you must manage your resources while fighting off mortal enemies.

Dope: Trekkies will rejoice over the cultural immersion, but those of you who don't get hot and bothered over Trekitude can sit on the bench and play Civ II.





Plot: Although other titles boast role-playing elements, Quest for Glory V features the classic three RPG classes-magician, warrior, and thief-and customization of your character's skills and abilities so you can construct him or her into a complete hero.

Your character lives in the fortress city of Silmaria on the sunny Greek island of Marete, a beautifully rendered 3D panoramic landscape. Of course, all is not well. Mercenaries hold the city hostage, the magistrate has been assassinated, fearsome monsters roam the countryside, and a fire-breathing dragon is threatening to fry everything to a crisp. Your mission, if you decide to accept it, is to restore order to this Mediterranean paradise. Only then can you sit back and truly enjoy a good margarita.

Dope: The last installment in the series, Quest for Glory V is going out with a bang. The eye-candy fantasy world will envelop you, but those of you new to the series will likely feel as if you just walked in on the middle of a conversation.





Availability: September 1998 Price: \$49.95

Cast: 19 kung-fu fightin' machines including X, Li Kwai, and Prodigy Company: Power Media, 503-684-8232, http://www.powermedia.com

Plot: Power Media's The Untouchable brings fast, furious martial arts to the Mac. Call it a twitch game if you will, but The Untouchable, with its full-motion characters, fluid animation, and upbeat digital soundtrack, is a blast to play. You can pick fights between 19 different characters with diverse backgrounds, ethnicity, and fighting styles. Plus, you'll deflect punches (if you're lucky) from a good number of female characters, who can hold their own against the men without kicking below the belt.

Dope: It's about time Mac gamers got a fighting game—those PlayStationheads have been throwing punches for years. The Untouchable should provide you with hours of pure martial arts action.





Ferazel's Wand

Availability: Q1 1999 Price: TBA

Cast: Ferazel and mean, mean creepy crawlies

Company: Ambrosia, 716-325-1910, http://www.ambrosiasw.com

Plot: In this action-packed side-scroller, you're a Habnabit, a fantastical gnomelike creature with magical powers who lives in a maze of underground tunnels. You play Ferazel, a journeyman who takes up the quest to defeat the Manditraki, a band of malevolent insectoids invading the homeland. The game offers screen scrolling at 30 fps; real-time lighting effects; over 50 types of spells, magical items, and weapons; and tons of complex levels. The author, Ben Spees, uses a special type of scrolling called "parallax scrolling" in which distinct 2D layers move at different speeds, creating the illusion of three dimensions.

Dope: This Ambrosia title is part of a line of antiproductivity software products, and that couldn't be closer to the truth. Ferazel's

Wand will probably get you fired.



Availability: September 1998 Price: \$29.99 Cast: Male or female Lode Runner Company: MacSoft, 800-229-2714, http://www.wizworks.com/macsoft

Plot: As either a male or female Lode Runner, you travel through isometric 3D worlds, collecting gold, solving puzzles, and evading evil creatures. Timing, resourcefulness, and logic combine to make Lode Runner 2 a completely action-packed experience. The dynamic Al allows enemies to react and move according to players' movements, which means varied gameplay and unlimited replayability. In addition to its single-player mode, Lode Runner 2 supports simultaneous multiplay for up to eight players.

Dope: Do you remember the original Lode Runner, which sold two million units? Well, it's back and more twitch-inducing than ever. This title isn't full of hype, but with all its nonstop action it's destined to be the sleeper hit of the season.





Availability: October 1998 Price: \$49.95

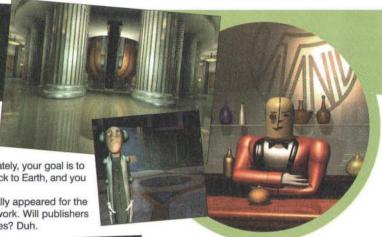
Cast: You, a parrot, bots, bots, and more bots

Company: Simon and Schuster Interactive, 800-223-2348, http://www.simonandschuster.com

Plot: Starship Titanic is the biggest and most beautiful galactic ship ever-sound familiar? Then it crashes into your house. As you explore the ship, you discover you're not alone. A crew of malfunctioning robots and a wacky parrot inhabit the interiors. You try to talk to these doorbots, barbots, and liftbots, but you can't understand

them unless you use the PET, which has a superfuturistic parser. Ultimately, your goal is to solve the mystery of the ship and seize control of it in order to take it back to Earth, and you must do this before the parrot drives you absolutely insane.

Dope: Forever delayed and nearly forgotten, Starship Titanic has finally appeared for the Mac. Ironically, this title is based on Apple Master Douglas Adams's work. Will publishers other than Bungie ever pick up the clue phone and create hybrid releases? Duh.





Jack: Revenge of the Brethren Availability: September 1998

Price: \$39.95

Cast: Nick Dove, Bone, Lyle, a provocative pirate wench, and more pirates

Company: THQ, 818-225-5167, http://www.thq.com

Plot: As 17-year-old Nick Dove you join RedJack's old crew in search of what else-lost treasure and revenge, the staples of any good pirate story. Along the way, you meet colorful characters who may or may not further your cause. And if talking isn't your style, there are plenty of puzzles combined with swash-buckling swordplay to get you all fired upif the lava pit doesn't first. RedJack's graphics are fantastic and feature unrestricted 3D panning, thanks to developer Cyberflix's proprietary graphics engine. You'll need a fast Mac to play this game, and don't forget your pirate hat and eye patch.

Dope: RedJack is great software piracy that action adventurers should thoroughly enjoy. The creators at Cyberflix did a wonderful job of bringing the pirates and civilians to life-but those darn puzzles are tough.





Availability: December 1998 Price: TBA

Cast: Silent Egyptian tombs, flowing water, and eerie statues Company: Altor Systems, 650-321-1416,

http://www.altorsys.com

Plot: As a prominent archaeologist, you become trapped in an Egyptian tomb and must escape from a vast array of rooms, tunnels, and levels. Puzzles feature the characteristics and symbolism of ancient Egyptian culture, so you even learn something. In addition to offering real-time lighting, high-quality textures, and 3D objects you can move, Nightfall is easily navigable via a virtual hand. Better yet, there are no monsters lurking in the dark, so you can't die. Nightfall emphasizes puzzle solving, adventure, and learning.

Dope: Nightfall is a breath of fresh air in the highfalutin 3D category, proving that real-time 3D doesn't have to mean blowing your leg off. You get all of the 3D environments and puzzles you crave without the gore.



FLY IN THE SKY HARDWARE

CH Products (760-598-2518, http://www.chproducts.com) sells the only complete set of flight-stick throttle and pedals you need for a complex fight sim. They're all integrated, meaning there are two serial ADB ports on the throttle for the stick and pedals

Mac F-16 FighterStick

Price: \$106

The F-16 FighterStick has all the buttons. switches, and knobs you could ever want for a flight sim. It's fully programmable and works in conjunction with other CH Products devices for that full-on, head-first acceleration into the skies.



Pro Throttle

Price: \$106

The Pro Throttle is one precise instrument for flying speeds from takeoff to mega Machs. It features programmable buttons and switches with its throttle, which lets you accelerate and decelerate all you want as you fly by.

Pro Pedals

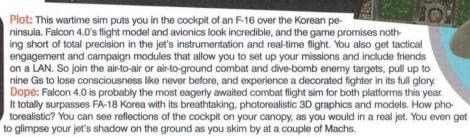
Price: \$119

The perfect flying experience needs one more thing: a rudder control. With the Pro Pedals, you can control your rudder for maximum flying-demon precision at high altitudes.



Falcon 4.0
Availability: 01 1999

Cast: A souped-up F-16 flying the unfriendly skies Company: MacSoft, 800-229-2714, http://www.wizworks.com/macsoft





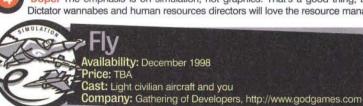
Availability: November 1998 Price: \$49.95

Cast: Teeny-weeny people Company: Sega, 888-872-7342, http://www.segapc.com

Plot: Created by Yoot Saito, the mastermind behind SimTower, Yoot's Tower is a sim in which you must build a tower—a microcosm of life—and keep it alive as long as you can. You choose between two locations, Waikiki and Tokyo, where you'll build either a corporate building or a hotel. In the former you must keep shops, cinemas, and transit systems running smoothly; in the latter you run the restaurant, setting the menu and

prices. During the construction and expansion of your tower, keep your tenants happy or they may get annoyed and leave in droves, depriving you of resources with which to continue your expansion and support building maintenance. Ah, the vagaries of urban management!

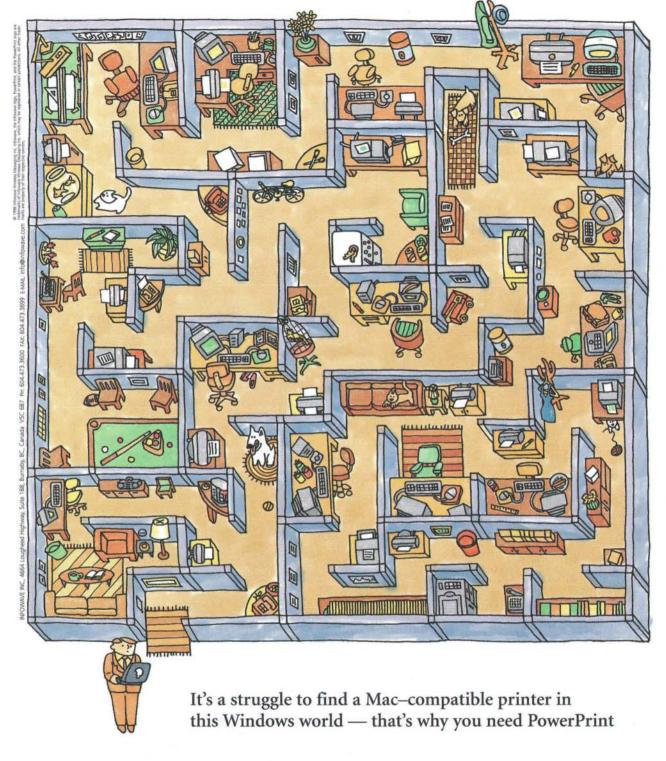
Dope: The emphasis is on simulation, not graphics. That's a good thing, because the graphics are uninspiring. Dictator wannabes and human resources directors will love the resource management practice, though!



Plot: Fly is a general aviation simulator that puts you in the pilot's seat of light aircraft, giving you control over a variety of single-propeller and dual-propeller aircraft, as well as a small jet. The developer, Terminal Reality, has gone to great lengths in its overall design philosophy; accurate representation of detail in each aircraft, from the cockpit and avionics layout to every switch, knob, and fuse. Add to that an accurate flight model, and you've got a stunning flight simulator. So where do you fly to? The first version will feature highly detailed scenarios of Los Angeles, San Francisco, Dallas-Fort Worth, Chicago, and New York. Dope: Based on the presentation shown at the E3 gaming convention last May and images at Terminal Reality's Web site, this simulator looks incredible and should raise the standard for the competition. Will Fly fly past Falcon 4.0? Or will Falcon 4.0 blow Fly up in the sky? It's going to be close.

Resident gamer Jennifer Ho stopped playing Unreal, Starcraft, and Lode Runner 2 just long enough to bring you this game roundup.





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COOI TOOI 1: Revamped AppleScript

COOL TOOLS THAT'LL MAKE YOU CRAVE THE UPGRADE

FIND THESE

FIND THESE UTILITIES ON THE DISC: The MacAddict search plug-in, AppSwitcher Control, and Internet Config.

Help

Open

fter years of languishing nearly forgotten in Apple's own proverbial Tower of London, AppleScript has once again gained the attention of company higher-ups, and they're letting it out into the world. AppleScript, now written in Power-PC native code, is not only 30 to 500 percent faster than earlier versions, it's also more powerful and friendlier than its predecessors. Here's the dirt on how it differs.

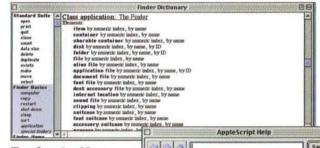
Folder Scripts

Scripted folder

One of AppleScript's most powerful new features is the ability to

attach a script to a folder so that when you open that particular folder or add an item to it (or when you do a few other things), the folder's script activates. Here's how to do it: Control-click the folder to which you want to add a

> script, select Attach A Folder Action from the contextual menu, and select the folder script you want to add. It has to be a special folder script, though, as regular scripts won't work properly. You must use one of a few prefab folder scripts in the System Folder (inside a special folder named Scripts), or you can make your own using Apple-Script. You'll also have to learn a few new commands. The sample scripts that Apple provides should make everything clear.



Easier to Use

The original Finder dictionary was a mess of classes and commands organized by suite, which meant very little to the average scripter. Mac OS 8.5 reorganizes the Finder's dictionary according to categories that mean something, such as Finder Basics. This version also includes a new AppleScript addition to the Mac OS Help Center, where you can learn all about what's new in AppleScript 1.3.



Get Info Label Duplicate Make Alias Put Away

Add To Favorites

Move To Trash

Attach a Folder Action...

Everything's Scriptable

Apple has taken great pains to make sure you can reach almost every part of Mac OS 8.5 through AppleScript. Networking, the Apple System Profiler, printing, file exchange, location manager, and searching are all on the list of scriptable items. AppleScript lovers, go wild!

eep in the bowels of some unnamed building in Cupertino, a multitude of Apple engineers have been hard at work on the latest version of the Mac OS, code-named Allegro. First promised by Gil Amelio (remember him?), Allegro—or Mac OS 8.5—is ready to see the light of day for the first time.

Fast, friendly, and fiendishly clever—as certain Apple folks tell it—Mac OS 8.5 is perched to take the Macintosh world by storm. Well, by squall, really. After all, it's not quite the same must-have upgrade as Mac OS 8.

Still, Mac OS 8.5 has a lot to recommend it. From lightning-fast searches to useful new interface tools, this latest version of the Mac OS rocks. Here's our look at the top five cool new tools in the Mac OS, and what you need to know to make the most of them.

> DAVID REYNOLDS BY

COOI TOOI 2: Updated Appearance Control Panel

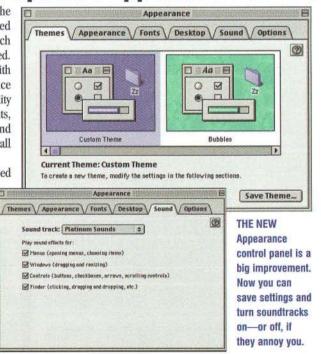
ith Mac OS 8, we finally got the look that Copland promised and third-party extensions such as Aaron and Kaleidoscope delivered. Mac OS 8.5 builds on this new look with an updated version of the Appearance control panel. Now users have the ability to control highlight colors, system fonts, desktop pictures, and soundtracks, and change how scroll bars behave-all from one control panel.

The best parts of the newly revamped

Appearance control panel are its smoothed-out fonts, soundtracks, and scroll bars. Turning on the smooth fonts feature provides a soft new way to read onscreen text. Web pages look better, and even word processing takes on a whole new feel. Mac OS 8.5's soundtrack gives otherwise ordinary actions such as scrolling, dragging, and clicking their own unique sound. Finally, you can give scroll bars propor-

tional thumbs, which provide a rough idea of the length of your document, and double scroll arrows at the bottom and right ends of scroll bars for precise scrolling.

The Streak Apple stopped short of including the full Themes implementation (remember Techno and Gadget from the Copland days?), but the ability is there, and Apple may include Themes at some point. In the meantime, if you have a collection of settings you like, you can save it as your own custom Theme via the Appearance control panel.



CHECK OUT THE

Unreal

NEW, improved icons!

Browse the Internet



ALTHOUGH THE DIFFERENCE is pretty subtle, these icons show the changes under Mac OS 8.5. Icons are now in 32-bit color and have 256 transparency levels. Notice the color changes in the band surrounding the icon name. Now you can see through it to the colors below.

BONus Tip

The soundtracks are in stereo. Plug in a pair of headphones and start dragging windows around to take a wild stereo ride. Try to do your work with your eyes closed.

nol Tool 3: Sherlock

eaving aside the goofy literary reference, Sherlock is an impressive tool. This Find File replacement has three different ways to help you find exactly the information vou're looking for.

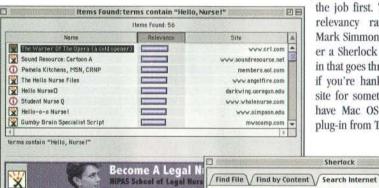
THREE WAYS TO SEARCH

The first method scans hard drives, floppies, mounted network servers, and the like for files with a specific name, creation date, and so forth. It looks a lot like the Find File function in older Mac OS versions, and works pretty much the same way. It even includes hidden features (such as searching for custom icons) that you can reveal by holding down the Option key while selecting the Name pop-up menu.

The second method takes advantage—finally—of Apple's VTwin search technology. After indexing a hard drive (a process in which Sherlock goes through and looks at each document, then references it in an index for faster searching later), users can search a document's content for specific items. The search is lightning fast, and returns results with a relevancy ranking. The gotcha? You must index drives before searching them, and indexing a drive can take hours. Fortunately, you can index in the background, and Sherlock has built-in scheduling to allow you to index and update those indexes at times when you're not using your Mac-say, 4 a.m. daily.

The third method lets you use multiple Internet search engines right from Sherlock's Internet panel. Just enter your query, select the search engines to use from the included plug-in modules (these are just specialized HTML code in a plug-in package), and start looking. Sherlock dispatches your query to all select-

ed search engines at the same time, and starts returning results from whichever engine does



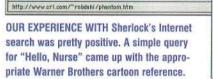
the job first. The results also have relevancy ranking. MacAddict's Mark Simmons has cobbled together a Sherlock Internet search plugin that goes through our Web site, so if you're hankering to search our site for something special and you have Mac OS 8.5, just install the plug-in from The Disc.

Sherlock

3

Search

Words Hello, nurse(



Ads, ads, everywhere ads!

M

M

Words Hello, Nurse!

AltaVista
Apple Tech Info Library

Encyclopedia.com Excite

(Infoseek

Search On

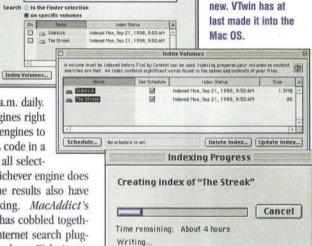
Sherlock's Internet searches return banner ads along with your results, so you get the extra pleasure of seeing ads right there in your OS search panel. Since the search engine plug-ins are just specialized HTML, an enterprising hacker could, one supposes, excise the ad banner HTML from the plug-in and just get search results. Remember, though, that search sites generally get their revenue from banner advertising, so by doing so you're depriving these sites of their livelihood.

By the way, you can now save a search as a document that launches Sherlock and pulls up the appropriate search results when you double-click it. Keen.



3

ones below are all



Requirements

- 16MB of real RAM with 24MB total. including virtual memory
- PowerPC Mac (no PPC upgrades)
- ■\$99 (\$14.95 through Mac OS Up-to-Date program for qualified customers, http://www.apple.com)

8.5 WithOut the UParade

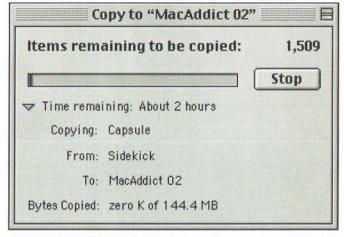
If you don't have the Mac, the money, or the desire to upgrade, here are three utilities that will give you a few of the features in the latest Mac OS.

- CoolViews—This extension lets you exercise some control over Mac OS 8's list views.
- LiteSwitch—This freeware utility lets you switch applications with a mere Command-Tab.
- ■Internet Config—This shareware utility saves all your Internet preferences in one convenient place.

COOI TOOI 4:

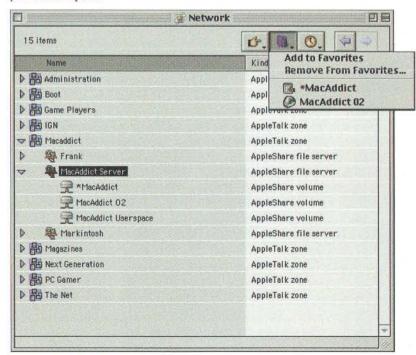
Improved Network Performance

e can't demonstrate this one on a magazine page, but we can tell you about it. The Mac OS 8.5 network engineers have been hard at work optimizing the OS's network file copy performance so it's the fastest around. Apple claims that Mac OS 8.5 is faster on a network than Windows NT—an amazing claim, and it seems to be true. This helps only people who move large files around on a fast Ethernet network. Those of us who still schlep around on a LocalTalk network won't notice a difference.



DON'T LET THE LONG estimated time fool you. Network copies under Mac OS 8.5 are noticeably faster—that is, when everything is set up properly.

Getting around on a network in Mac OS 8.5 is now easier, thanks to the Network Browser. This application supplements the Chooser by letting you use a browserlike interface to move among the servers on your local area network. The Network Browser also has a bookmark-style Favorites feature that lets you keep your favorite servers at hand, and it tracks recently used servers for easy access. The Chooser is still around, though, and is likely to have a long, happy life; after all, you can't select printers through the Network Browser. You can still access servers through the Chooser; the Network Browser just gives you another option.



ALTHOUGH THE CHOOSER will never go away, the Network Browser application does a great job of replacing half its functions. Browsing a LAN was never so much fun!

Installation

Finally, you can do walkaway installation with Mac OS 8.5—once started, the Mac OS 8.5 installer finishes without any further help from you. And it does the job in 15 minutes or less, or your pizza's free. This new installer lets you customize the components you want to install (or remove), and you can mix standard installs, custom installs, and custom removals in the same session.

Once you've told the installer what components you want, simply start the installation process. The installer checks the disk structure for damage and repairs what it finds, then updates drivers before finally installing the software. And that's it.

The new installer also allows for push installs across a network—a real boon for those who administer large Macintosh labs. Now you can install a new Mac OS from one central location. All you need to do is install the SNMP (Simple Network Management Protocol) administrator program, and you're off and running.

What Will Break— AND WHAT TO DO ABOUT IT

So far, we haven't encountered anything that breaks hopelessly when used with Mac OS 8.5, but that doesn't mean it won't happenespecially with low-level utilities and the like. Most of the time, when these utilities break, they simply stop working properly. Fortunately, the secrecy bug that has infected certain parts of the Apple campus hasn't caught on in the Mac OS 8.5 department, and many third-party developers were able to update their products to work with the new OS. If you find that upgrading to 8.5 fries one of your favorite applications or utilities, look for a software update from the company. If by some chance it's a piece of hardware with a case of 8.5 indigestion, the procedure is pretty much the same. Go to the technical support section of the company's Web site and look for the update files. Email us at letters@macaddict.com if you find an update too huge for a modem that you'd like to see on The Disc. We'll consider your request—or at least have a good chuckle.

Rumors had it that Claris Emailer would be a wreck on the side of the road under Mac OS 8.5, but we haven't had that experience. So far, Emailer 2.0 seems to run just fine. On the other hand, the Adaptec 2940U2W SCSI host adapter card needs a flash ROM upgrade to work right, and the OS doesn't support Apple-branded PC compatibility cards.

QUIZ-SHOULD YOU UPGRADE?

Mac OS 8.5 boasts a lot of great new stuff, but when it comes to upgrades you have to ask, is it really for you? Take our quiz and find out!

- 1) Are you on an Ethernet network?
- 2) Do you read Web pages in multiple languages?
- 3) Do you use the shareware control panel CoolViews?
- 4) Do you have a PowerPC machine?
- 5) Are you an AppleScript fanatic?
- 6) Do you search your really large hard drive a lot?
- 7) Do you like antialiased text?
- 8) Are you excited by repetitive noises?
- 9) Is not using your mouse important to you?
- 10) Do you obsess about having your clock set correctly?
- 11) Do you do a lot of installations?
- 12) Do you want to install over a network?
- 13) Do you have a hankering to use QuickTime Pro 3.0?
- 14) Do you have a PC compatibility card?

Score yourself

- 30 points for Yes. Mac OS 8.5 features really fast file copies across a network.
- 10 points for Yes. You can get this with Mac OS 8.5 or with a language kit.
- 5 points for Yes. Mac OS 8.5 has resizable and reorderable list views. Finally.
- 4) 10 points for Yes, -500 points for No. Mac OS 8.5 is PowerPC only.
- 25 points for Yes. If you're an AppleScripter, you'll want this release.
- 6) 5 points for Yes. The VTwin technology included in Sherlock makes lightning-fast searches a breeze—including finding documents by content.
- 7) 2 points for Yes. Mac OS 8.5 has antialiasing built in, but you can get that through the shareware utility SmoothType.
- 8) 10 points for Yes. The new Appearance control panel has a soundtrack built in that includes lots of clicks, glorps, and other sounds related to actions such as dragging, pulling down menus, and scrolling.
- 9) 2 points for Yes. Mac OS 8.5 lets you switch applications with a Command-Tab—no more clicking around for the appropriate window or application.
- 10) 10 points for Yes (or 25 points if you require medication for your condition). Mac OS 8.5 can automatically check and set the system clock so you don't have to, saving weeks of potentially messy work.
- 11) 15 points for Yes. Apple has finally fixed its walkaway installer so that it completes the job—by itself—in 15 minutes or less.
- 12) 10 points for Yes. If you administer a large group of Macs, being able to do so from one central Mac is a Good Thing, and Mac OS 8.5 has that Good Thing.
- 13) 15 points for Yes. The retail version of Mac OS 8.5 comes with QuickTime Pro 3.0 at no extra cost.
- 14) -100 points for Yes. Mac OS 8.5 doesn't play nice with Apple PC Compatibility Cards. You'll need to find another solution.

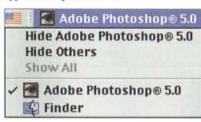
If you scored—oh, I don't know—say, 33, you should probably upgrade. If it was 0 to 32—well, think about it. If your score was negative, then fahgeddaboutit.

COOI TOOI 5:

User Interface Goodies

hat would an operating system update be if things didn't look—and work—differently? Mac OS users are going to feel right at home with Mac OS 8.5, but they will still notice some improvements. First, the Applications menu in the upper-right corner has

changed in a couple of cool ways. The currently active application's name now appears next to its icon in the menu. (For those who like the old way or have limited menu bar space, a click on the bar next to the icon collapses the menu back to its traditional icononly state.) You can now tear off the Applications menu by dragging through the bottom to form a sort of live application palette that lists all running applications, with the current one highlighted. Drag and drop a file onto this palette, and the appropriate application opens the file.





Applications BB

Apple System Profiler

For those who don't like the default Applications menu, take a look at AppSwitcher Control (a shareware control panel by Pascal).

AppSwitcher Control lets you control the Application menu's behavior by setting such things as its layout, icon size, frame presence, and key combinations.

YOU'LL FIND AppSwitcher Control on The Disc.

Another nice touch in the revised user interface—window title bars now include icons. As pretty as they are, these icons aren't just for decoration. They act just like the folder icon, so that if you want to change the location of a folder and its



NOTICE THE ICON next to the window title? It works just like a real icon—that is, drag it to a new folder, and you've moved the icon's folder.

window is open, you can simply drag the icon in the title bar to a new folder. You can also drag items to the icon, and they'll pop right into the folder—great when you've rolled up those folder windows into a title bar.

Finally, Apple has responded at last to the gripes of users dealing with—and complaining about—Mac OS 8's list views. It has made a few much-needed modifications: You can now resize and reorder list columns with just a drag, and Apple has reimplemented global list view settings. Be nice and tell Apple thank you.

MacAddict editor-in-chief David Reynolds was sent home to think about what he'd done.

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Reviews

Who's got Mac holiday spirit? MacAddict, of course! Check out the goods.

Intuos 9x12 Graphics Tablet



FREAKIN'
AWESOME
The most valuable
products, the
coolest gizmos.



A solid offering Overall a good investment.



YEAH,
WHATEVER
A few
good features,
but generally
a waste of time

and money.



BLECH! We hate to even blotch our pages with the thing.

HARDWARE
COMPANY: Wacom

CONTACT: 360-896-9833, http://www.wacom.com

PRICE: \$509 (SRP)

REQUIREMENTS: 68040 or faster Mac, System 7.5.5 or later, 16MB of RAM, 10MB of free hard disk space, CD-ROM drive

hen the Intuos first arrived in our offices, we were less than impressed—gee, another drawing tablet. How new can this be? (Direct any letters about our being jaded snots to letters@macaddict.com). But our initial impressions were wrong—way wrong. Sure, the Intuos is a drawing tablet, but it goes far beyond that with some innovative new features and solid software and hardware implementation.

At the heart of the Intuos's coolness are its unique pens. The tablet ships with one 4D mouse and a pen, and you can buy other tools separately (see "A Toolbox Full of Toys," facing page). The mouse has five programmable buttons and a wheel, which you can use to manipulate items such as models in a 3D modeling program. Pretty nifty, eh? Well, Wacom went a step further with this—while you rotate a 3D model with the 4D mouse in

one
hand,
you can
also paint on
it with a pen tool
in the other hand.
That's because the tablet
can accept input from two
devices at once.

But wait—that's not the coolest part of the Intuos system. Each new tool (including pens, airbrush, and mice) has a unique serial number that the driver software can recognize. This new technology, called ToolID, allows you to assign different colors and settings to individual ToolID pens. For example, you can assign one pen to be a red paintbrush and a second to be a

blue ink pen: Each time you approach the tablet, it recognizes which pen you're holding—no matter what tool you had selected before. This gives you a whole cup of virtual tools that don't

A CONTROL PANEL WITH DEPTH: The Wacom tablet software lets you control your tools down to the finest detail. Take the time to customize these settings, and you'll give yourself a big, hearty pat on the back later.

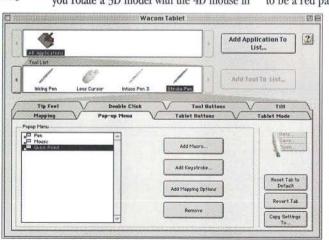
THE NAME INTUOS
STANDS FOR—well, we
don't know exactly what it
stands for, but it sure is a lot
of fun to use.

require fiddling with settings each time you want to switch. Just pick up the appropriate pen, and off you go.

ToolID works. It keeps the computer from getting in the way of drawing. The only problem is the limited number of programs that support it. Intuos ships with a copy of Painter Classic that has ToolID, and there is a ToolID plug-in for Photoshop 5.0 available for download from Wacom's site. A few other applications support it as well; look for that number to increase as Wacom flexes its muscle.

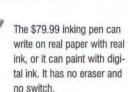
Even without ToolID, the Intuos does a great job. It offers up to 1,024 levels of pressure sensitivity, its surface permits accurate drawing, and it has a series of buttons across the top of the tablet with preset values such as open and save. Just tap a button, and it carries out the appropriate action. These are also programmable.

Installing the Intuos is straightforward and trouble free. Just plug the tablet into the ADB port, plug your keyboard into the pass-through connector (if necessary),



A Toolbox Full of Toys

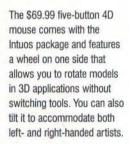
The Intuos ToolID suite features a range of tools so you can pick the right one for the job. The tablet comes with one pen and one 4D mouse, but you can buy all the tools separately. They're all cordless and battery free. If you have the money, you might consider getting a few pens and one of each of the other tools-they're great to have on hand.



The \$49.99 Intuos pen that comes with the package is much more than a pen. It has a dual-position rocker switch and an eraser on the other end. Just flip the pen over and erase away.

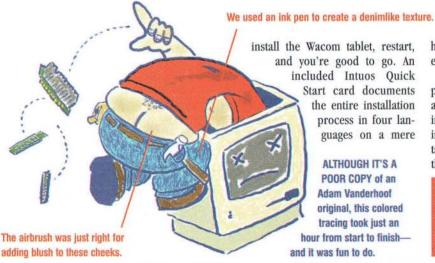
The \$99.99 airbrush is a tool for digital-art geeks, featuring an ink-flow control wheel, a great airbrushlike grip, and an eraser. How many analog airbrushes can boast that feature set?

The \$79.99 stroke pen features a softer tip with more give; like the inking pen, it doesn't have an eraser or switch.



A mouse with crosshairs. the \$69.99 lens cursor is great for drawings that require a high degree of accuracy. It doesn't have the side wheel or tilt features of the 4D mouse.





HARDWARE

INTUOS 9x12 GRAPHICS TABLET p. 58

VPOWER PM4400 G3/240 p. 74

POWER DOMAIN 2940U2W p. 80

VPOWER G3/300 p. 84

MACTEL VISION3D PRO II LITE VS. IX3D PRO REZ p. 62 EPSON STYLUS PHOTO 700 p. 70 VP150 VIEWPANEL p. 72

install the Wacom tablet, restart, half sheet of letter-size paper. It's not rockand you're good to go. An et science. included Intuos Quick The Intuos is simply a great graphics

> Start card documents the entire installation process in four languages on a mere

ALTHOUGH IT'S A POOR COPY of an Adam Vanderhoof original, this colored tracing took just an hour from start to finish-

GOOD NEWS: Big drawing area. Easy installation. Great tools. Stable, useful software with lots of features. aware applications available.

BAD NEWS: Limited number of ToolID-

product. Each tool feels good in the hand,

and the company has put some thought into how to make a common product excit-

ing again. If you're looking for a graphics tablet, look no further. Wacom has something you'll want to see. - David Reynolds

DESIGN & GRAPHICS

NETOBJECTS FUSION 3.0 p. 64 IMAGEREADY 1.0 p. 82

FUN & GAMES STARCRAFT p. 76

PRODUCTIVITY

ADRENALINE CHARTS PRO 1.0.2 p. 60

MULTIMEDIA

EFFETTO PRONTO 1.0 p. 78

STUDIO VISION PRO 4.0 p. 66



reviews

Adrenaline Charts Pro 1.0.2

DESIGN & GRAPHICS

COMPANY: Adrenaline Software

CONTACT: 418-658-9909, http://www.adrenaline.ca

PRICE: \$399.99 (street)

REQUIREMENTS: Power Mac, System 7.5.3 or later, 32MB of RAM, 10MB of free

hard disk space, CD-ROM drive, QuickTime 3.0 or later (included)

RECOMMENDED: 604 120MHz or faster, System 8.0 or later, 64MB of RAM,

QuickDraw 3D hardware acceleration

or many folks who work extensively with data sets, spreadsheet applications are the obvious answer. But sometimes you want more than boring spreadsheets and two-tone, 2D charts. Sometimes you need animation, 3D bar charts, exploded pie charts, jazzy backgrounds...you know, pizzazz.

Enter Adrenaline Charts Pro 1.0.2, the pumped-up, multimedia-intensive version of Adrenaline Software's old Charts SE 1.0. Priced at a whopping \$399.99, Adrenaline Charts Pro is not geared toward casual chart plotters. For anything less than professional-level charts, save your money and use the chart tools in your spreadsheet application.

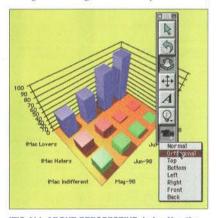
Creating a chart in Adrenaline Charts Pro is easy. Just enter your data into a Microsoft Excel, ClarisWorks, or text file, then import it into Adrenaline Charts Pro. The program offers three fast, flawless ways to import data: Choose Import from the File menu, drag and drop a file right onto a new Adrenaline Charts Pro document, or copy and paste your data directly into an Adrenaline Charts Pro document. Adrenaline Charts Pro quickly pops up a chart using its default settings.

You can turn this default chart into a highquality creation in minutes. Use the Chart Types palette to choose from the application's

23 different chart types, including 2D and 3D bar, pyramid, ribbon, line, layer, step, bagel, pie, and esoterica (surface) charts. Then use the guts of the application—the Appearance palette, Tools palette, and Chart

YOU'LL SPEND LOTS OF TIME in the Appearance palette, which controls everything from ambient light to object orientation. menu—to work out the details and add multimedia zip. The list of things you can do with these palettes and menus would take a short book (or the excellent user

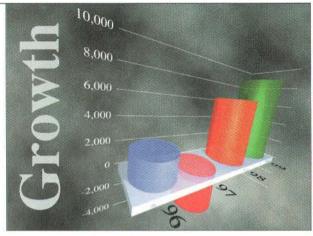
guide that comes with the package) to describe, but rest assured that you can create almost any chart imaginable with them. You can add and manipulate light sources; import background images in a variety of formats,



IT'S ALL ABOUT PERSPECTIVE, baby. Use the Camera tool to change the viewing angle.

including QuickTime; cast realistic shadows; animate your chart so that it spins on an axis; vary the transparency of any element; and size and position your chart precisely.

Adrenaline Charts Pro also supports exporting in a variety of formats, including PICT, PICT with ColorSync, JPEG, Photoshop, EPS, QuickTime, and 3DMF, so you can add your charts to almost any type of document. For example, we created one chart and saved it as a 72-dpi image for the Web, imported another into a Photoshop image, used a third in a QuarkXPress document, and exported a fourth as a QuickTime movie.



take a short book (or the excellent user Pro may save you headaches and improve your productivity.

The best thing about Adrenaline Charts Pro is that it's made only for the Mac, which means you get an easy-to-use interface and none of the annoying Windows-esque features so common to poorly ported PC products. Adrenaline Charts Pro takes its Mac-centric attitude one step further by offering ColorSync and AppleScript support.

Adrenaline Charts Pro isn't perfect, though. It's expensive. Its 3D rendering uses lots of memory, which can cause serious slowdowns, error messages, and crashes. If you have less than 64MB of RAM, plan on closing all other applications before using it. To make full use of the application, you also need QuickDraw 3D and the latest version of your 3D accelerator card's driver.

We can't stress enough that you need this program only if you spend your days making detailed, high-quality charts. But if that description fits you, Adrenaline Charts Pro will make your job easier and your work product more professional.—Jeff Titterton

packed 3D charts blow regular 2D charts out of the water. Easy-to-grasp, easy-to-use Mac-like interface makes learning a breeze. Easy import of Excel, ClarisWorks, and text files. Exports charts in a variety of file formats for use in other applications. Supports ColorSync and AppleScript.

BAD NEWS: Expensive, Uses lots of RAM, particularly when rendering in 3D. For full capabilities it requires the QuickDraw 3D extension, plus the latest software drivers for 3D accelerator cards.



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reviews

MacTell versus IXMicro

HARDWARE

MacTell Vision3D Pro II Lite 8MB

COMPANY: MacTell

CONTACT: 888-622-8355, http://www.mactell.com

PRICE: \$399 (SRP)

REQUIREMENTS: PCI-based Mac

ix3D Pro Rez

COMPANY: IXMicro

CONTACT: 408-369-8282, http://www.ixmicro.com

PRICE: \$359 (SRP)

REQUIREMENTS: PCI-based Mac, System 7.6.1, 16MB of RAM, free PCI slot

f the built-in video in your Power Mac leaves you wanting more, both MacTell and IXMicro offer reasonably priced video cards that will scroll your pages faster and redraw your screen guicker.

IXMicro's ix3D Pro Rez is a 128-bit 2D and 3D graphics accelerator with 8MB of SGRAM. It supports resolutions up to 1,600 by 1,200 and refresh rates as high as 100Hz. The board's video out uses the Mac-standard wide connector, so attaching Apple monitors is a no-brainer. The ix3D Pro Rez also supports QuickDraw, QuickTime, MPEG, and RAVE acceleration.

MacTell's Vision3D Pro II Lite, the lower-cost version of the Vision3D Pro II card, features the 128-bit Ticket to Ride graphics controller. The Vision3D Pro II Lite has 8MB of WRAM; supports resolu-

tions up to 1,960 by 1,060; and has a vertical scan frequency up to 150Hz.

QuickDraw, MPEG, ports QuickTime, RAVE, and OpenGL acceleration.

Both of these cards are excellent choices for most computer users. Each supports the usual array of graphic features, including z-buffering, texture blending and fog, and bilinear filtering. The ix3D Pro Rez is a more consumer-oriented board with a lower price point; an ample software bundle that includes Bryce 2, Expression, and Kai's Photo Soap; and a \$59 TV-out upgrade option. The ix3D Pro Rez is also an excellent performer, attaining a score of 521 in a Norton Utilities video test on a stock G3/233. A 30-page text scroll in Microsoft Word 98 took only 4 seconds. By comparison, the ATI Rage II chip that shipped with the first motherboard revision of the G3/233 hit only 313 in the same test and took 7 seconds to scroll the same document.

Although the ix3D Pro Rez is a solid card, MacTell's Vision3D Pro II Lite completely smoked it. It scored a blinding-fast

825 on the same Norton video test, beating the Pro Rez in every category except ovals and text scrolling. However, the same Word document that scrolled in 4 seconds on the Pro Rez also took 4 seconds on the Vision3D Pro II Lite.

The only software that comes with the MacTell card is a control panel. Although aimed more at graphics professionals, the Vision3D Pro II Lite also supports RAVE and OpenGL, and does a good job of speeding up 3D games that make use of these technologies. The Vision3D Pro II Lite's video connection is the 15-pin conTHE VISION3D PRO II LITE wins the performance test, while the ix3D Pro Rez wins the software-hardware bundle contest.

densed connector common to the PC platform, so owners of monitors with Mac connections will need an adapter.

Both cards support a wide variety of resolutions, but the Vision3D Pro II Lite supports significantly more resolutions at more scan rates. Because monitors differ so widely in supported resolutions and scan rates, most users will find that the MacTell card offers more viewing options than the ix3D Pro Rez. On the other hand, the Pro Rez wins the software battle.

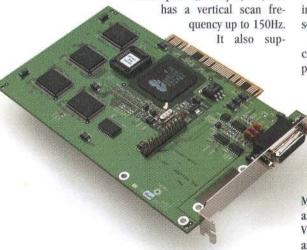
Home office users and consumers will probably get the most from the ix3D Pro Rez. It has a great software bundle, a lower price, excellent 2D and 3D performance, and good RAVE support. Graphics professionals who already work in Photoshop, Illustrator, or 3D programs such as InfiniD will probably do better to spend \$50 more for the additional performance features of the Vision3D Pro II Lite.—Rick Sanchez

MacTell Vision3D Pro II Lite 8MB

GOOD NEWS: Outstanding performance for a good price. Good control panel, BAD NEWS: No software bundle.

ix3D Pro Rez

6000 NEWS: Large software bun die. TV-out upgradable. Good control panel. BAD NEWS: Somewhat low price-



THE IX3D PRO REZ gives you more bang for the buck with its super software bundle.

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When your Macintosh computer is not operating correctly, having the right tool to find and fix the problem is important. And as any technician will tell you, you can never have too many tools. TechTool Pro 2 checks more aspects of your Macintosh than any other utility available. Besides repairing and recovering damaged drives (including those with the new HFS+ format), you can also test all those other critical parts of your system that our famous competitor ignores like RAM, CPU, floppy drives, scanners, modems, Internet connections, CD-ROM drives and much, much more.

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reviews

NetObjects Fusion 3.0

DESIGN & GRAPHICS

COMPANY: NetObjects

CONTACT: 888-449-6400, http://www.netobjects.com
PRICE: \$199 (SRP), \$99 upgrade or competitive upgrade
REQUIREMENTS: PowerPC, System 7.6.1 or later, 16MB of RAM (32MB recommended), 70MB of free hard disk space, CD-ROM drive, monitor capable of displaying 800 by 600 pixels in 256 or more colors

f you've ever tried to design, build, and manage a Web site with frequently changing content and organization, you know what a pain it can be to keep track of internal links, revise navigation bars, and make sure all pages have consistent interface elements. Enter NetObjects Fusion 3.0. It can handle all of these tedious tasks, freeing you up to concentrate on design and content. But that's just the beginning of what it can do for you.

NetObjects Fusion 3.0 is a Web site creation tool. Although you can use it to create individual Web pages, there are better basic tools for that (PageMill and CyberStudio come to mind). NetObjects Fusion's strength lies in the way it enables you to manipulate the organization of pages on a site; it changes links and navigation bars automatically as you change the relationships and locations of page files. This makes site organization a real no-brainer and takes most of the work out of linking pages.

NetObjects Fusion 3.0 has five views for working with a site's contents. Site View enables you to build the hierarchical structure of the site—the relationship between the

Name: DisplayLogo

When: Page Loaded

Normal Action

Target: GRPLogo

Message: Iris

Parameter(s): Out

Cascade message

Cancel OK

USE THE SET ACTION dialog box's pop-up menus to set options for JavaScript actions—no coding required!

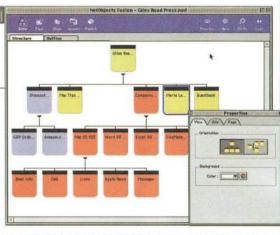
pages—with a simple drag-anddrop interface. Use Page View to design and add content to Web

pages. This is where you create individual pages. With Style View you can apply one of dozens of predefined SiteStyles to the pages on your site. A SiteStyle is like a template that includes text styles, colors, backgrounds, buttons, and images. This great feature lets you apply a look consistently to all pages of your site with just a few clicks. Asset View displays a list of all the files, links, data objects, and variables your site references. Publish View displays the HTML, graphics, and other files composing the Web site as you save them. Organize files using one of three predetermined methods, or set up your own filing structure. When you move files around, NetObjects Fusion handles any changes to links-no more broken links on your site.

If you're interested in making your site stand out, NetObjects Fusion 3.0 has you covered. It lets you include simple JavaScript actions and scripts for DHTML animation and interactivity. You can insert its NetObjects Fusion Components—a series of predefined



THE SMART LINK TAB of the Link dialog box enables you to create links to other pages based on the site's organization.



SET UP YOUR WEB SITE'S HIERARCHY using Site View's simple drag-and-drop interface.

Java-based and JavaScript-based programs into pages for additional functionality you can't easily achieve with manual coding. NetObject Fusion 3.0's support for FileMaker Pro databases makes it easy to incorporate database information into your Web sites. Finally, the Everywhere HTML feature allows you to optimize any portion of your site to run on specific browser versions.

NetObjects Fusion 3.0 generates HTML only when you preview pages in your Web browser or publish the site on your local computer or Web server. While this speeds up the operation of the program in other views, you have to wait several minutes to preview or publish—especially if your site contains many pages.

NetObjects Fusion 3.0 comes with an Installation and QuickStart Card, a Quick Reference Card, and a *Getting Started* book. The book is the most valuable of these, providing a very good tutorial that shows you what the program can do. If you want in-depth reference material, however, you'll have to fire up Adobe Acrobat to access the 516-page user guide. If you prefer to consult printed material while working with a program, you may find this extremely frustrating—perhaps enough so you'll want to print out this hefty but well-written and informative document.

NetObjects Fusion is a good tool for designing and building great-looking, easy-to-navigate Web sites with the kind of consistency that makes a positive impression on visitors.—Maria Langer

GOOD NEWS: Excellent site management. Professional-looking styles.

Great navigation capabilities.

BAD NEWS: Generation of HTML can be time consuming. User guide in PDF format only.

Apple chose EarthLink for the iMac, why not choose EarthLink for your Mac

See

Enclosed

Software

or Call



The "i" in iMac™ stands

for Internet. So it's no

wonder the iMac comes

pre-installed with a direct

connection to EarthLink,

America's #I-rated

Internet access provider.

Other high praise for EarthLink from the Macintosh community...

"The largest independent Internet service provider is also one that caters well to its loyal Macintosh subscribers." — Mac Central, April 17, 1998

"EarthLink has become the Macintosh of the ISP world — the way for 'mere mortals' to connect to the Net." Business Week, December 15, 1997



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reviews

Studio Vision Pro 4.0

AUDIO

COMPANY: Opcode Systems

CONTACT: 650-429-2400, http://www.opcode.com

PRICE: \$995 (SRP), \$149.95 upgrade from any previous version
REQUIREMENTS: PowerPC 604e or faster, 16MB of RAM, large hard drive

(1 minute of 44.1KHz audio requires 10MB of space), L2 cache

pcode Systems claims that it aims to put musicians first by letting their creativity flow without hindering them with geeky technical procedures. Its Studio Vision Pro 4.0, the Mercedes-Benz of audio sequencers, features an elegant, intuitive user interface and comes loaded with features and options that put a recording studio's worth of equipment in your Mac. Because this is a high-end professional application, Opcode assumes users have MIDI, some keyboards, one or two sound modules, and possibly a sound card.

Studio Vision Pro 4.0's power and flexibility allow you to customize the way you work with it. For example, it offers user-definable

Select and Change Belocity

For all Note Events In selected tracks whose

For all Note Events In selected tracks whose

Position Is from \$5.1.0 troy 9.1.0

Select Petion Is from 119 throw E51

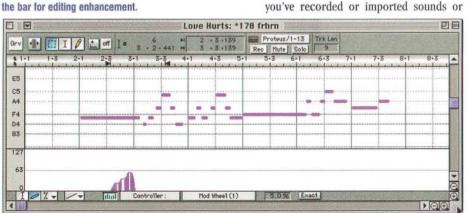
Velocity Is from 119 throw 127

Refine

Change

Set to we oscillating value from 127 to 127

HERE, WE SET THE VELOCITY OF LOUD, LOW NOTES in the fifth through ninth bars to oscillate every four beats using a square wave setting. This versatile feature raises the bar for editing enhancement

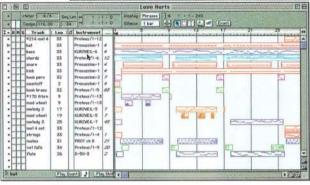


THE GRAPHIC EDIT WINDOW shows you what notes are playing and how long they last. The shape at the bottom of the window represents a mod wheel gesture that comes in at the end of a held note.

backgrounds for windows and dialog boxes. Customizable settings are great because you can personalize the plethora of windows and dialog boxes so you can

carry out creation and editing tasks with a minimum of fuss. If you're a power user, you have more than 50 choices of customizations at your fingertips. Having such choices is almost a necessity in a high-end app with so many window workspaces.

The Tracks window has columns of information that include the name of each part, its length, what instruments and patches it uses, and comments. To make your experience easier, resize the window. You can even save several different setups and access them easily when you need them. A clever loop-based recording mode allows you to experiment with sounds and record an entire multi-instrumental creation. It loops, you play. When you like it, you press Enter, which records your track. You can even change the instrument and repeat. You never have to stop the sequencer. What could be easier? Once you've recorded or imported sounds or



CUSTOMIZE YOUR COLUMNS and arrange, copy, and move your tracks in this window. The Transport Counter can display bars and beats as well as time or SMPTE. This comes in handy if you want to score a QuickTime movie.

audio into a track, you can edit, arrange, set controllers, quantize, and create loops, using simple drag-and-drop operations from the same Tracks window.

If you like to manipulate your data by seeing and tweaking every event in a list, use the List Edit window for precise, detailed control. And speaking of control, the new, ingenious Select And Modify window lets you perform, modify, and save complex selections of different kinds of events across multiple tracks. Modifications include Transpose, Harmonize, Ouantize, Set Instrument, Move, Reassign (fader events to controllers), and Change (for notes or controller data). You can even save all your settings for later use. In other sequencers and older versions of Studio Vision, operations like those required a lot of clicking, selecting, and processing.

On the other hand, if you're more comfortable with standard notation, you can move and edit notes, change duration, and set the volume and other controller levels from the Notation Edit window. It's even easy to print out whole scores or individual parts.

The Graphic window shows notes in a logical, visual way, and you can easily edit notes, thanks to Opcode's "smart," contextually sensitive cursor. This cursor automatically changes functions depending on where you move it. Place it near the end of a note and drag to change the note's length. When you position the cursor near the middle, you can move it up and down to hear changes in pitch. When it's near the front of a note, you [continued on page 68]

Upon further reflection, maybe you don't want to be King.

- Over 25 spectacular spells and 70 unique characters to face in multiplayer or solo challenges
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- 100's of hours of gameplay in exquisite 16-bit color
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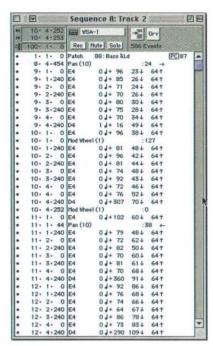
Original music soundtrack album also available: Free preview at www.QG5.com. Orders 1.800.757.7707







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IN THE LIST EDIT WINDOW, you can see every event in the track and edit them all numerically.

[continued from page 66]

can move the note in time—for example, from the beginning of a measure to the end, or when you're really zoomed in, from the start of a beat to its end. Use the Pencil to enter new notes—it's totally intuitive.

Opcode's innovative Audio-to-MIDI and MIDI-to-Audio technology enables you to transform a single-line digital audio file into a MIDI track containing the pitch, timing, and dynamics of the original file. Say you've recorded a vocalist who is a little flat on a few notes. Convert the singing to MIDI, correct the flawed pitch, fix up the timing if you wish, then change it back into digital audio. We're approaching magic here. If you'd like to put a conga drum solo on a CD, import the CD track section, convert it to MIDI, and use any of your own MIDI sounds to play that solo. Are you getting excited yet?

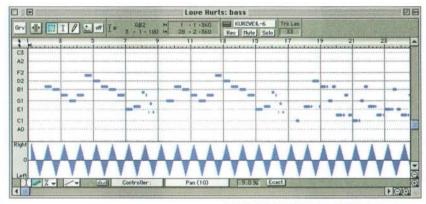
Opcode has incorporated over a hun-



pcode was preparing version 4.1 of Studio Vision Pro at press time. We couldn't evaluate it, but Opcode is adding the following features, which are in its lower-price Vision DSP. The 4.1 upgrade is free to owners of Studio Vision Pro 4.0.

- · Support for Steinberg's VST real-time audio plug-in architecture
- · Five types of new studio-quality EQs
- · ASIO software standard, supporting a wide range of audio cards
- New effects such as Echo, Cycle, Align, Chorus, Rezn8, Plate, Comp, Squash, Panner, and Ring Modulator
- · Four audio insert points on each audio channel
- · Ability to place visible names on each mixer channel

For those of you who don't need Studio Vision Pro 4's high-end capabilities, Vision DSP (about \$299 street) is an audio and MIDI sequencer that does everything Studio Vision Pro does—except support Pro Tools' TDM systems. DSP includes the Audio-to-MIDI and MIDI-to-Audio converters, Opcode's Galaxy universal patch librarian, Peak SE sample editing software, Arboretum Systems' plug-ins, a drum groove CD, visual jamming software, and a selection of sequences and samples.

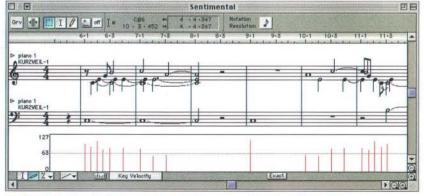


dred new features that Studio Vision users have suggested over the years into Studio Vision Pro 4.0, and there are even more in the new 4.1 update (see the sidebar "Studio Vision Pro 4.1 Becomes Eclectic"). It's impossible to cover them all in this review, but here are a few favorites. You can set quantize values precisely and choose Play Quantize to hear the effect without harming the original sound sample. In other words, as your changes create a new sample, the original

PAN THE BASS PART from right to left using a triangle waveform. It's a wild effect and so easy to create!

one remains intact. Each track can have different quantize values with either Grid or Groove settings, all of which you can save. A new Pulse window lets you create and edit drum parts more easily than ever before. Also, the Strip Chart includes edit shapes: You can define these oscillating sine, triangle, and sawtooth waveforms by any number of bars, beats, units, seconds, frames, and even SMPTE. This means you can pulse the panning, volume, and mod wheel (or any controller) to the beat of the song. The effect is mind blowing.

It's amazing that Studio Vision Pro 4.0 has so many great new features and still remains intuitive, easy to use, and ready to expand with your creativity.—Judy Munsen



NOT ONLY CAN YOU CHANGE AND ADD NOTES, you can use the Strip Chart at the bottom to create and edit controller data.

audio and MIDI sequencer. Mixer and effects processor allows an amazing level of control. BAD NEWS:

Takes a lot of processing power and RAM. High price, but Opcode Systems' Vision DSP offers most of the same features for less.

Vpower G3/300/1MB

PCI PowerMac

New Price



Vpower PM 4400 G3/240

PowerMac 4400 Star Max 3000

New Price \$499



PowerPC

Vpower G3/300/512KB

PCI PowerMac

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Vpower PM 4400 G3/300

PowerMac 4400 Star Max 3000



Vpower G3/233

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New Price



\$899

Vpower PF G3/240

Apple 54xx 64xx Super Mac C500





Vpower PB 1400 G3/233 PowerBook 1400

New Price



Vpower Advantages:

¥Instantly revs up your machine with a next-generation PowerPC G3 (750)CPU ¥Employs revolutionary backside cache technology

¥Vpower PM 4400 G3/240 CPU outperforms the Power Macintosh desktop G3/233

¥Vpower G3/300 delivers lightning-fast performance, second to no other chip of its generation ¥Vpower G3/233 performance exceeds that of the desktop Power Mac G3/233

¥Vpower PB 1400 G3/233 for the PowerBook 1400 series outperforms the Power Mac G3/233 desktop machine ¥Improves your Power Macintosh 4400's CPU performance 2.8 times and FPU speed 1.5 times ¥Boosts your PowerBook 1400 series machine's CPU speed by 4-5 times & approximately doubles your FPU speed

¥Every Vpower card comes equipped with a high-speed L2 cache

¥MacOS 8.5 compatible

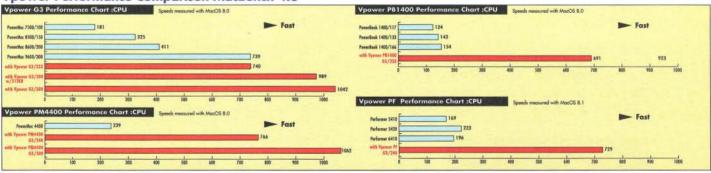
¥Brings a massive speed improvement to your computer's built-in video capabilities:

Vpower 4400 G3/240 yields a speed increase of 1.5 times

Vpower PB 1400 G3/233 approximately doubles the speed of your video performance Vpower G3/300 provides a 3 to 5 times improvement for Power Mac 7500/8500, and roughly triples the video speed of a Power Mac 8600/250

Vpower 750 brings a 2 to 4 times improvement to the Power Mac 7500/8500, and increases the speed of a Power Mac 8600/250 by about 2.5 times.

Vpower Performance Comparison MacBench 4.0



Product	Compatible Machine	CPU	Cache	Price
Vpower G3/300	Power Mac 7300,7350,7500,7600,8500,8550,8600,9500,9600,9650 UMAX S900,S910	G3/300MHz	1MB/150MHz	\$ 798
Vpower G3/300/512	Power Mac 7300,7350,7500,7600,8500,8550,8600,9500 UMAX S900,S910	G3/300MHz	512KB/150MHz	\$ 598
Vpower G3/233	Power Mac 7300,7350,7500,7600,8500,8550,8600,9500 UMAX S900,S910	G3/233MHz	512KB/117MHz	\$ 389
Vpower PB 1400 G3/233	Power Book 1400	G3/233MHz	512KB/117MHz	\$ 499
Vpower PM 4400 G3/240	r PM 4400 G3/240 Power Mac 4400 Motorola Star Max 3000,4000		512KB/120MHz	\$ 499
Vpower PM 4400 G3/300	Power Mac 4400 Motorola Star Max 3000,4000		1MB/150MHz	\$ 899
Vpower PF G3/240	Power Macintosh/Performa 54xx,64xx Super Mac C500	G3/240MHz	512KB/120MHz	\$ 499

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Stylus Photo 700

HARDWARE

COMPANY: Epson America

CONTACT: 800-463-7766 or 310-782-2600, http://www.epson.com

PRICE: \$279 (SRP)

REQUIREMENTS: Any Mac except the Classic, Plus, or PowerBook 100; System 7.1 or later (7.5 recommended); 16MB of RAM (20MB recommended); 13-inch color display or better; 2X CD-ROM drive; standard Apple serial cable

e know you've seen the ad in which a female swimmer poses in her cap and bathing suit-and it turns out the latter is painted on. Can you really tell that from an inkjet printer's results? Yes, you can. Inkjet print technology has gotten so good that inkjet printouts reveal a great amount of detail-photorealistic detail, that is. And Epson's line of photo-quality inkiets is at the forefront of that technology. The Stylus Photo 700 is the best photo-quality inkjet printer you can buy for under \$300.

Like the more expensive Epson Stylus Photo EX (see Reviews, Aug/98, p64), the Stylus Photo 700 achieves photorealistic prints through its top resolution of 1,440 by 720 dpi, patented Micro Piezo printhead technology, and six ink colors. Therefore, when you print images such as high-resolution photos on glossy film paper, you get prints that look as good as real

USE PHOTO DELUXE to reinvent life. Normally, in long view the Ecole Militaire sits behind the Eiffel Tower, but 'tis true no more,

photo-lab prints. The only way you

reviews

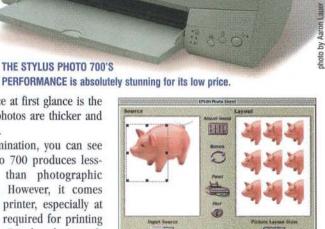
can tell the difference at first glance is the type of stock (real photos are thicker and have a shinier gloss).

Upon close examination, you can see that the Stylus Photo 700 produces lesscontinuous tones than photographic reproduction does. However, it comes close for an inkjet printer, especially at 1,440 dpi, which is required for printing on glossy film paper. Regular photo-quality inkjet paper, which is much less expensive than glossy film (10 cents per sheet versus \$1.80, approximately), serves quite well for day-to-day printing with the Stylus Photo 700.

What's also great about the printer is its software bundle, Epson's Digital PhotoLab. This includes Adobe PhotoDeluxe 2.0. Extensis Portfolio, Epson's Photo Sheet, PictureWorks' Spin Panorama, and a primer on photography, Diamar's Learning to See Creatively LE. Though graphics pros who already possess an arsenal of digital imaging apps won't need these, others will truly appreciate the ease of use and flexibility the bundled software provides. In fact, these applications eliminate the need to buy Photoshop.

PhotoDeluxe, for example, can touch up images for brightness, color correction, and so on. It's easy to use and offers very nice special effects such as drop shadows, color to black and white, posterizing, and page curl. You can also use it to doctor images: If you ever wanted to remove that formerly special someone from a perfectly good picture of yourself, just crop that person out with the Magnet tool and use a brush to fill up the space. PhotoDeluxe also features templates for printing labels and a variety of picture frames to add to images.

In addition, Epson's Photo Sheet offers



HERE, PIGGY, PIGGY. Want pictures for your friends? Photo Sheet lets you arrange that.

you various printing options. For example, you import an image, then select from a range of printing options such as wallet size, 8 by 10 portrait, 3 by 5, 16 mini wallets, and so on. It also allows you to crop images so you can print only the portion you want. To help you get organized, Extensis Portfolio catalogs your collection of images. In sum, Digital PhotoLab is a very useful software bundle that lets you take full advantage of the Stylus Photo 700.

Before we overdose on this fabulous printer, we should warn you about a few things. First, if you do easy installs of PhotoDeluxe and Photo Sheet, some of your extensions-from Photoshop 5, for example-may get replaced. We couldn't get Photoshop 5 to work with older extensions. Also, if you have OuickTime 3, avoid easy installs that include QuickTime 2.5. Our advice is to back up your extensions before installing the software.- Jennifer Ho

GOOD NEWS: Superb, photo-quality results. Nice, easy-to-use software bundle. Price-performance ratio unmatched by any other inkjet printer. BAD NEWS: Easy installs overwrite newer exten-

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VP150 ViewPanel

HARDWARE

COMPANY: ViewSonic

CONTACT: 800-888-8583, http://www.viewsonic.com

PRICE: \$1,200 (SRP) REQUIREMENTS: Any Mac

echnology doesn't get much cooler than the new flat-panel LCD monitors making their way into homes and offices-and the VP150 ViewPanel. ViewSonic's latest entry into this rapidly expanding category, is one of the best on the market.

Like all flat-panel displays, the VP150 is small, weighing in at only 15.6 pounds. It stands about the same height as a regular 17-inch display, but is only 7 inches deep. This small footprint makes it perfect for small work areas, freeing up unimaginable amounts of desk space for your keyboard, mouse, arm, pencils, whatever! The point is, the VP150 is much more compact than the monitor that's on your desk now. It can also be wall mounted to free up even more desk space, which is a nice way to show off the display to jealous coworkers.

The VP150 ViewPanel has a 15-inch display. However, unlike traditional monitors, flat panels measure the actual display area, so the 15-inch LCD actually has about the same viewable area as a 17-inch monitor, making the difference in physical dimensions even more pronounced.

Of course, even the smallest footprint

For a lickety-split adjustment of brightness and contrast, you can push these clearly marked buttons.

The Menu button brings up the onscreen display, which gives you control over 15 types of settings.

Tuck away unsightly cables in the back panel of the stand. Neato!

YOU TOO CAN FEEL LIKE A VIP with ViewSonic's VP150 ViewPanel.

doesn't mean anything if the image quality is poor. Fortunately, the VP150 looks fantastic. The display is very bright, with a 200:1 contrast ratio. It also has a large viewing angle-up to 140 degrees horizontal and 100 degrees vertical-that gives the viewer a lot of latitude to position

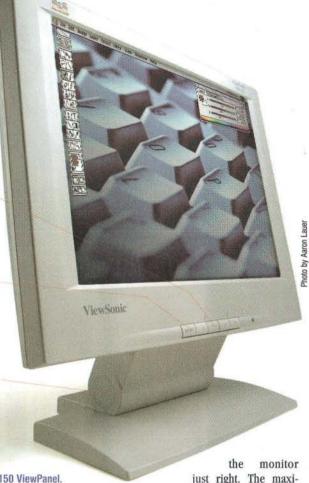
the just right. The maximum resolution on the VP150

is 1,024 by 768 pixels at a fast 75Hz refresh rate. An important item to note: At its maximum resolution the VP150's display is fantastic, but at lower resolutions such as 640 by 480 the image is very fuzzy and difficult to look at.

The VP150 is a snap to set up. The cables attach to the back of the monitor in a nice enclosed space for easy cable management. The monitor connection is actually a standard PC attachment, but ViewSonic includes a PC-to-Mac monitor adapter.

The VP150 ViewPanel is definitely one of the nicest LCD monitors you can buy, but it is also painfully expensive at \$1,200. Users looking to free up desk space and get a great monitor will do well with the VP150, but the price keeps it from being a "Freakin' Awesome" purchase.—Rick Sanchez

GOOD NEWS: Small footprint. Great quality at lower resolutions



The Mac

he VP150 ViewPanel doesn't come with any software. It is a true plug-and-play LCD. All the controls you need-there a lot of them—are built right into the OSD (onscreen display) control. With a push of the menu button, you bring up the OSD, which features more setting controls than you can shake a stick at. The settings cover contrast, backlighting, horizontal position, horizontal fine-tuning, vertical fine-tuning, vertical position, color temperature, video level adjustment, display frequency (for horizontal and vertical scan refresh rates), language, auto size, recall (for factory

settings), OSD position, and picture.

We were really impressed with the language control, which gives you a choice of five languages in which to view the OSD-ENG for English, DEU for German, FRA for French, ITA for Italian, and ESP for Spanish. If you ever wanted to know what backlighting was in German, just switch the language to DEU, then go to the control, and you'll see Hintergrundbel. or if you prefer French, rétroclairage. Neither Japanese nor Chinese are featured, however, as their characters are too intricate for the min-



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38576 Lily

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Vpower PM4400 G3/240

#

Get Int

HARDWARE

COMPANY: Vimage

CONTACT: 877-484-6243 or 310-225-3979,

http://www.vimagestore.com PRICE: \$599 (SRP)

REQUIREMENTS: Power Mac 4400, Motorola StarMax 3000 or 4000. System 7.5.3 or later (8.0 or later recommended)

f you bought into the world of Mac compatibles a while ago, you've probably been feeling abandoned since Apple vanked the license rug from beneath clone makers, forcing them out of business. Take heart. Certain companies out there are working to broaden your horizons so you, too, can join the G3 bandwagon. Among them is Vimage, which has produced an upgrade card that transforms a Motorola StarMax 3000 or 4000, or a Power Mac 4400, into a raging G3 machine.

"What? How?" you may ask. Can the Power Mac 4400 and those StarMax models be upgraded? After all, the 603e in those mod-

647

460

237

214

199

183

141

127

System Ratings

Overall CPU Rating

els is soldered onto the motherboard. You can't replace what you can't remove. Right?

Wrong. The Vimage people and their innovative Japanese engineers have come up with a card that plugs into the computer's level 2 cache slot. All you have to do is remove the L2 cache module from your

> machine and pop the Vpower PM4400 G3/240 in, and you're up and running. No messy workarounds, switches, no tinkering.

It's that easy. Of course, you could always pay a local Mac technician to do it for you (at a cost of \$25 to \$35 if you shop around), but that really isn't necessary. The procedure is quite simple. First load the extension that allows your machine to recognize the upgrade card, then shut down vour computer and open up the case by removing the screws that hold it in place.

After you attach an electrodischarger (enclosed with each kit) to your wrist and run it to the computer's metal chassis as a ground, you locate the L2 cache module. That's easy, too. Grip the card firmly by the edges-don't put pressure on the sensitive electronic components-to remove it. Once the L2 card is free, seat the Vpower PM4400 in the slot

THE VPOWER PM4400 G3/240 LOOKS LIKE L2 CACHE, but it's a G3 upgrade for your aging Power Mac 4400 or StarMax 3000 or 4000.

and snap it in. Voilà!

What do you get for your labor? A screaming third-generation PowerPC 750, operating at 240MHz. (Another card on the way, the PM4400 G3/300, will boost you to 300MHz.) The CPU performance almost triples, and the FPU performance is close to double the original 603e's. And no, you haven't lost your L2 cache. The G3/240 card houses its own 512K backside cache, which is more efficient than the original look-aside cache.

The Vpower PM4400 G3/240 specifications indicate that the new card will work with any version of the Mac OS from 7.5.3 on up, but strongly recommend 8.1. We tested the upgrade on a StarMax 3000 running System 7.6—that version did just fine. The results were instantaneous and awe inspiring.

To see differences in real-world tasks, just sit back and launch a few apps. Utilities speed up, word processors sing, graphics programs such as PageMaker and Photoshop open faster. At \$599, the Vpower PM4400 G3/240 isn't inexpensive, but if you're not ready to give up your old StarMax or Power Mac 4400, this upgrade will at least bring you up to the level of current Macs-and put you ahead of those Pentium IIs .- John Lee







Show: CPU

System Name

PM9600/200

PM7600/120

PM5400/120

PowerMac 8100

PB 1400cs/117

Current System

Performa 6400/180

Motorola StarMax 3000/160

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Starcraft

FUN & GAMES

COMPANY: Blizzard Entertainment

CONTACT: 310-793-0600, http://www.blizzard.com

PRICE: \$50 (SRP)

REQUIREMENTS: PowerPC, System 7.6 or later, 16MB of RAM, 2X CD-ROM drive, quad speed required for cinematics

ans of Warcraft II have been anxiously awaiting Starcraft, Blizzard's latest addition to its real-time strategy lineup. And boy, is Starcraft hot. It's already sold over 1 million copies on the PC and is about to explode onto the Mac. It's so hot, in fact, that we couldn't wait for the shrink-wrapped box to start playing it, nor could we wait to tell you about its excellent gameplay, with Terrans, Zerg, and Protoss—oh my! At press time, networking on Battle.net hasn't been perfected, but as online gamers know, you're only as good as your connection. In any case, Starcraft is almost here, so get ready.

The three mug shots gracing the box's cover represent the most obvious innovations. With three species—Terrans, Zerg, and Protoss—Starcraft's space opera drifts far from the crowd of simple sagas of good versus evil. In both single-player and multiplayer games, these interspecies alliances create an exciting dynamic in constant flux. Three campaigns give you an introduction to each species; the 30 missions, in which the three species battle against each other, offer great

CARRIERS FILLED WITH INTERCEPTORS and Reavers with heavy-hitting Scarabs make this assault force deadly to the Zerg. Note the fleshy Creep that supports Zerg structures.



THE TERRAN BATTLESHIP'S YEMATO GUN is one of several impressive but pricey superweapons.

variety and teach you different playing styles.

You begin the game as shepherd to a small group of Terran colonists. External forces threaten Earth's diaspora, while intrigue and civil conflict undermine its chances of survival. Monstrous swarms of the biologically advanced Zerg are overwhelming outlying colonies, and the mysterious Protoss, with their psionic gifts, are destroying Zerg-infested Terran colonies to contain the Zerg.

Starcraft executes the culture, biology, and technology of each species in marvelous detail. As you continue through the campaign's 30 scenarios, you must learn the peculiar ways in which each species' society works as a combat unit. The Terrans, adaptable survivors, can repair damaged mechanical units, and have structures that lift off to

THE ZERG'S ASTOUNDING NUMBERS can roll over even a Terran Maginot line. But reinforcing Goliaths rush in from other fronts to resist encroaching swarms.



ON THIS TACTICAL PROTOSS MISSION in









TRANSFORM INTO A PSIONIC GIANT. Watch as two High Templars merge to create the Archon, which is tall enough to knock down aerial attackers.

relocate their base closer to new resources or to avoid attack. Completely dependent on their Hatcheries and biomutation, the Zerg form a wonderfully conceived organic society. They build all of their structures on a living surface eerily called "the Creep." The favored children of a lost race, the Protoss are as technologically advanced and powerful as they are confident of their civilization's superiority.

The key to guiding your army to victory is to study the relative strengths and weaknesses of the three species. Terrans, armed with comparatively basic technology, fare the worst on an open battlefield. A Terran player requires good technique and a great deal of cunning to win against the Zerg swarms or the high-tech Protoss. Much more aggressive, however, are the swarms of Zerg, which-once loosed en masseare ferocious and endless. Zerg players must be especially cautious at the start of a game, when numbers aren't on their side. The Protoss-the most advanced specieshave big egos, and their exorbitantly priced technology is really strong late in a game.

Don't get so involved in building advanced Protoss structures and units that you fail to produce lots of those valuable upgraded Zealots—you'll need them.

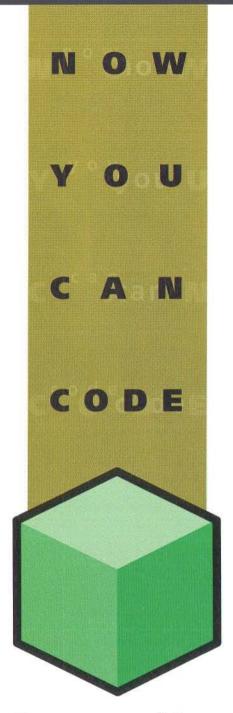
Starcraft is more polished than Warcraft II, but remains essentially the same—the interface and gameplay haven't changed much. Resource gathering, which keeps the efficient factories pumping out units, has been superficially modified: Instead of collecting gold and wood, now everyone collects blue minerals and green Vespene gas (sorry, no yellow diamonds). Hard-core war gamers may object to the unreality of it all, but resource gathering does add longer-term strategy to missions.

A few purely tactical missions have been added for variety, and they can be tricky. Precision tactics, despite some interface improvements, still ride shotgun to resource gathering. At critical moments, with tiny troops all bunched up together, it's hard to believe that Blizzard designed the interface with precision movement and target selection in mind. The new way-point system can be frustratingly difficult to set up, and the convoy command ought to keep your units in their starting formation. The good news is that Blizzard has improved the interface for unit production, adding queue and rally points so you can set up a list of troops to produce and automatically move them to the front line.

Visually, Starcraft is elegant and functional. It uses "color cycling," which shifts the palette in predetermined ways to give more delicate shading and vibrancy than is usual for 256 colors. Plus, the images don't stay still: Many units transform into morepowerful forms, accompanied by fascinating and fluid animations. The in-game graphics are great, but the cinematic cutscenes are truly awesome—smoother, slicker, and packed with action.

Starcraft may well be the best real-time strategy game of the year—at least until Bungie releases Myth II: Soulblighter (see Fun & Games, Sep/98, p77) sometime before the holiday season. Starcraft offers enduring gameplay plus expandability, with multiplayer competition on Blizzard's own Battle.net and with new maps (made with the included editor) posted online. Whether you're a fan of Myth or of Warcraft, this highly polished pearl of strategy will wow you.—Samuel Parker

GOOD NEWS: Excellent play balance.
Three distinct species, each with
unique units. Thirty challenging missions. Quality graphics and animation.
BAD NEWS: Doesn't venture far from Warcraft's
resource-nathering formula.



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Effetto Pronto 1.0

MULTIMEDIA

COMPANY: Videonics

CONTACT: 800-338-3348, http://www.videonics.com

PRICE: \$4,995 (SRP)

REQUIREMENTS: PCI-based Mac 604e or faster, System 7.6.1 or later, QuickTime 2.5 or later (3.0 recommended), 24MB of RAM (48MB or more recommended), 10MB of free hard disk space, 17-inch monitor (20-inch monitor and additional monitor recommended), fast disk array and video capture hardware recommended

he standard argument for not using Macs in digital video postproduction (what they call finishing in the biz) goes more or less like this: "Yeah, sure, After Effects can do just about anything a Flame can do, but not in real time, and time is money, pal, so get out of here!" Such video snobbery will no longer fly with the introduction of Effetto Pronto (ready effect in Italian), a real-time (or pretty near real-time) finishing system for creating sophisticated DV special effects. This hardware-software combo from Videonics not only gives the Mac what it needs to stand tall in the DV postproduction suite, but at \$4,995 SRP it costs a mere 10 percent as much as a base-price Discreet Logic Flame.

Pronto, the hardware half of Effetto Pronto, is a long, incredibly circuit-dense PCI card that just barely squeezed into our desktop G3/266. Our test board included an optional \$495 daughtercard for output to NTSC or PAL video monitors. We hooked up a video monitor to the board's external composite jack—there's S-video output,

too—to view effects as they would appear in their final form.

The interface of Effetto, the product's software half, will be instantly familiar to

anyone who has used Adobe's After Effects, the industry's standard software-only DV compositing tool. Like After Effects, Effetto offers a Comp window for layering movies and effects; a keyframe-based sequencer (called the Comp Editor) for working out effect timing and sequence; and a variety of other windows and floaters for playing movies and sounds, keeping track of the media you're using, and selecting effect types.

The sheer speed at which everything moves will blow you away. You can execute and play back nearly every effect and manipulation instantly—even antialiased 3D effects with lighting and motion. For example, you can bring a full-screen 30-fps movie into the Comp window and make it spin in space while flying through a scrolling block of text, all in real time.



EFFETTO PRONTO MAY LOOK LIKE Adobe's After Effects, but it sure moves a heck of a lot faster. At top left is the Comp window; at bottom is the Comp Editor; on the right are the Footage floater, Parameters floater, and Project window.

Because you see everything as it happens, you can make corrections on the fly. That means you can say good-bye to the hair-pulling After Effects routine, wherein you render something for hours, only to find out you made a stupid mistake and have to do it again. The only things not rendered in real time are glow and blur filters. These take just as long as they do in After Effects, and they slow down playback considerably, but you can turn them off temporarily.

Effetto's compositing environment is streamlined and intuitive. In the Comp window, if you want to put one layer in front, you simply move it forward. There are no Boolean operators (add, multiply, and so on) between layers, but well-designed keying tools partially make up for that. You can view the comp from any

The Page-Turn Master

effortlessly pulled off the ever-popular page turn, with a twist.

Because Effetto Pronto has a real z-buffer, it can do real DV-style 3D effects. Here, we



Start with any image and pull up Effetto Pronto's Parameter floater.



Choose Page Turn under the 3D Effects tab. The Progress setting shows how much of the page the curl involves; Smoothness is how sharp the curl crease will be.



A conventional curl executes in real time.



If that's not cool enough, grab a corner and turn the page upside down, then pull the top edge forward. It still peels in real time!

angle, including a perspective view, just as in a 3D animation program. Effetto Pronto offers motion along the z-axis (depth), which After Effects does not—finally your comps can go spinning off into space with correct perspective. In this version of Effetto, though, there do seem to be problems with the z-buffers. When layers move through other layers, the program does not always render accurately the area where they intersect.

The Comp Editor's keyframe interface mimics that of After Effects, which is after all the best in the business. Each object entry offers lots of keyframe parameters. Unlike After Effects, Effeto Pronto lets you set a global default so that parameters create a keyframe with each change, or so they don't-a very nice option.

While there are no function curves or graphs to adjust motion timing, Effetto does have a very intuitive interface for doing so right on the motion paths themselves. Each path has two markers you can drag along it to quickly eyeball motion acceleration and deceleration. The closer the markers are to the motion path's beginning and ending, the faster the motion starts and stops. While not as precise as function curves, the markers are very swift and easy to use. Other animation programs should emulate this feature.

Most comps include text, and Effetto's type tools are at least as good as Photoshop 5.0's. In the Titler window, you can specify line spacing, alignment, and margins; and set text to have a glow or outline, change

color over time, or cast a shadow. Unfortunately, text output is in pixels, not PostScript, so if you have small characters fly toward the screen in a 3D move, you'll see antialiased edges. (The workaround for this: Don't blow up small text—always shrink big text instead.) After Effects offers a superior resolution-independent text technology, which we hope Effetto will adopt in a future version.

Will Effetto Pronto put After Effects out of business? Absolutely not—After Effects does things Effetto Pronto can't yet touch. After Effects has more-sophisticated layer manipulation and combination tools; its resolution-independent text handling is superior; and the After Effects Production Bundle offers motion tracking and motion math, essential for compositing live action with animated or bluescreened elements. But when you're talking about speed, Effetto Pronto is not just the clear winner—it's a major advance that will enable the Mac to survive and thrive as the most cost-effective machine for DV.—Steve Anzovin and Raf Anzovin

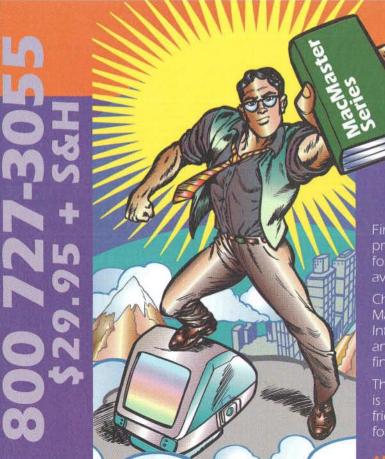
GOOD NEWS: Stunningly fast compositing and effects. Simple, intuitive working environment.

BAD NEWS: Expensive. Animated titles are raster, not vector. No Booleans in Comp window. Z-buffering is sometimes inaccurate.

the Plug-Ins

A Ithough Effetto Pronto 1.0 doesn't offer internal support for Adobe After Effects plug-ins, Videonics promises this vital capability for version 1.1, which should be available by the time you read this. You'll want to check out these plug-ins:

- * All DigiEffects products (http://www.digieffects.com), including Cinelook, which applies film grain to video; and Aurorix, a suite of 26 effects including an old-movie look, lighting, distortion, media simulation, and pattern and texture generation.
- * Final Effects Complete from Metacreations (http://www.metacreations.com), a suite of particle systems, color and distortion effects, and 3D transitions.
- * Boris FX AE, a collection of DV transitions, 3D effects, keying, color correction, and curvilinear filters from Artel Software (http://www.borisfx.com).



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PowerDomain 2940U2W

HARDWARE

COMPANY: Adaptec

CONTACT: 408-945-8600, http://www.adaptec.com

PRICE: \$499 (SRP)

REQUIREMENTS: PCI-based Power Mac, System 7.6 or later,
Ultra SCSI or Wide Ultra2 SCSI devices recommended

ore speed...more speed...more speed...more speed. This mantra has driven the computer world for years now. But let's face it—faster processors take you just so far. When it comes to large files the bottleneck is often the hard drive, not the processor—nor even the system bus. So what do you do for more speed? Adaptec's answer is the PowerDomain 2940U2W SCSI host adapter—just a long name for a SCSI card.

This PCI board plugs into your Mac and

THE CONTROL APPLICATION IS SMALL, but solutions to the PowerDomain's quirks often lie deep within it. To cure video-capture problems, for example, select Video Buffer from the Board menu and tweak the controls in that dialog box.

adds Ultra2 capabilities. So what's the big deal about that? Plenty. The PowerDomain 2940U2W gives your Mac another SCSI bus capable of supporting up to 15 additional SCSI devices, and it handles a variety of SCSI protocols-including Ultra SCSI, Ultra2 SCSI, and regular SCSI. The PowerDomain 2940U2W extends the maximum amount of SCSI cable to 12 meters (from a relatively limiting 3 meters). The additional 15 SCSI devices can be farther apart, and still shuffle data through your system at up to 80 MBps (for reference, the standard SCSI port is capable of a 5-MBps burst). The PowerDomain 2940U2W can host multiple SCSI flavors without slowing everything down to the slowest device's speed.

Does the PowerDomain 2940U2W really make disk operations 40 times faster? Not in the real world, Dorothy, but it speeds things up considerably. To get the most out of our PowerDomain 2940U2W, we installed a couple of 9GB Seagate Cheetah hard drives (these spin at 10,000 RPM and can spit out data at up to 80 MBps—the card's maximum) and did a

ALTHOUGH IT
LOOKS LIKE just
another PCI card, the
PowerDomain 2940U2W SCSI
host adapter (say that three times
fast) is the key to raw speed—provided
you have the drives to back it up.

hoto by Aaron Lauer

bunch of copies. Then we striped the drives together into a RAID (using Apple's SoftRAID 2.0, a separate item) and checked our speed. When we were done, disk-related operations on a RAID were about three times faster in the real world. Mmm-hmm—that's tasty.

Installing the PowerDomain 2940U2W was daunting, but by following the instructions we got up and running with little difficulty. First shut down the Mac, install the PowerDomain PCI card, connect the internal SCSI devices, and connect a couple of SCSI ribbons to the card. Then install a second PCI slot blocker containing a second SCSI port with a different pin configuration, which adds yet another port. The software is easy to use, and we had only minor problems with video capture. By tweaking the way the PowerDomain 2940U2W uses the PCI bus, we were able to capture video without problems.

The PowerDomain 2940U2W's major drawback is that it requires equipment to squeeze out the most speed. For the maximum in blazing power you need to add at least two Ultra2 SCSI hard drives and some RAID software, an investment that will most likely run an additional \$1,000. But if you're after speed and already running a G3 at, say, 233MHz, your best bet for a boost is this card. Of course, on a G3 you'll only have two (or even just one) free PCI slot after installation, but the speed boost is worth it.—David Reynolds

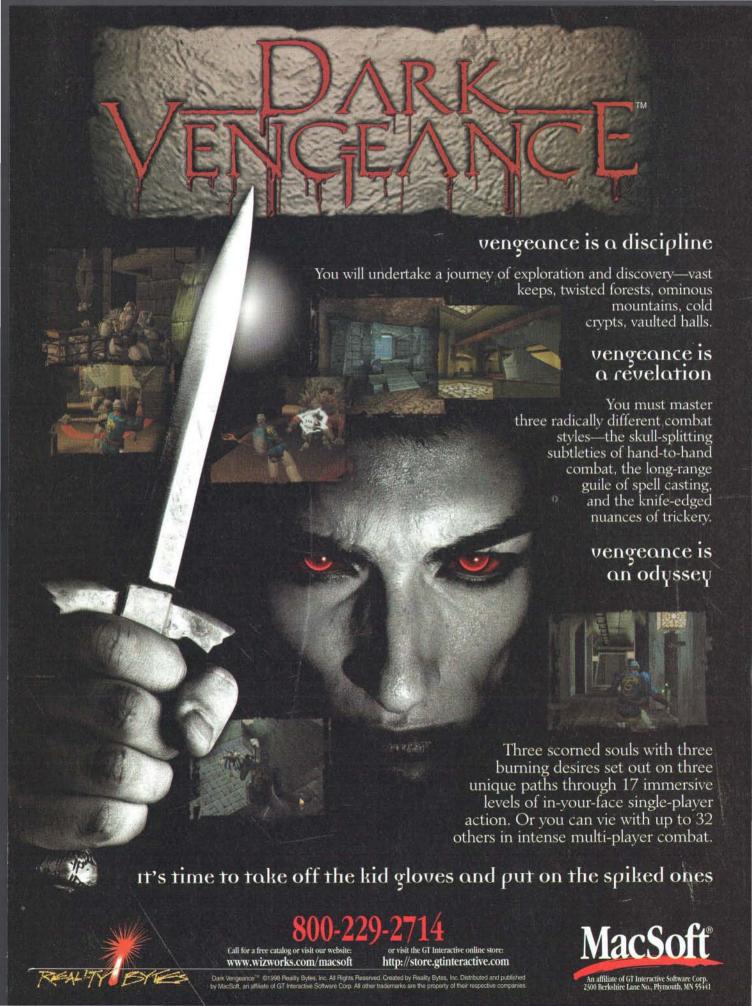
an additional \$1,000. But if you're after special and already running a G3 at, say, 233MF your best bet for a boost is this card. course, on a G3 you'll only have two (or evijust one) free PCI slot after installation, but it speed boost is worth it.—David Reynolds

GOOD NEWS Speed, speed, speed.
Connect up to 15 SCSI devices to this card. Slower devices don't slow down faster devices. Did we say speed?

BAD NEWS Daunting installation. Some interference with video hardware. Devices are expensive

SCSI Speed Shootout We performed all tests with a collection of 47 files in a single folder weighing in at 240MB. Shorter

bars are better. Duplicate file on standard 1 min 37 sec external hard drive Copy from standard SCSI 1 min 4 sec drive to Ultra2 SCSI drive Copy from Ultra2 SCSI drive 44 sec to Ultra2 SCSI drive Duplicate file on Ultra2 40 sec SCSI drive Duplicate file on striped 32 sec Ultra2 SCSI RAID





ImageReady 1.0

DESIGN & GRAPHICS

COMPANY: Adobe Systems

CONTACT: 408-536-6000, http://www.adobe.com

PRICE: \$199 (SRP)

REQUIREMENTS: Power Mac, System 7.5.5 or later, 16MB of free RAM, 20MB of free hard disk space, color monitor, CD-ROM drive

ne day the Web bought some lingerie, lit some candles, and invited Photoshop over for a romantic dinner. The result was Adobe ImageReady. Geared toward graphic designers tired of dealing with a small arsenal of graphics applications, ImageReady ties Web image creation and preparation into one program.

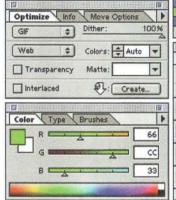
Featuring an easy-to-use, Photoshop-like interface with both standard palettes (Color, Brushes) and new ones (Optimize, Animation), ImageReady targets Web professionals. You won't find any mention of CMYK or picas here-everything is in RGB and pixels. A Preview In command replaces the Print command, displaying your images, file information, and HTML in your browser.

Another unique item is the two-tab editing system. The Original tab contains your work area, and the Optimized tab displays your image at current settings (GIF, IPEG at 30 percent, and so on). Toggling between these views is easy, and changing the settings results in real-time changes to the image. Also, the bottom of the editing window contains two pull-down menus that display useful information such as file size and download time.

Aside from displaying download time, ImageReady helps you fashion your images for the Web in several other ways. Client-side image maps are a snap to create-simply select Use Layer As Image Map in Layer Options, specify the URL, then use the HTML from the generated file. ImageReady also lets you slice an image along guidelines, but it falls short on other effects. It doesn't know

IMAGEREADY'S ANIMATION FEATURES are well implemented.

YOU'LL FIND **BOTH FAMILIAR** AND NEW **FACES** in ImageReady's palettes.





JavaScript and can't help you create rollover buttons, something most WYSIWYG editors and Macromedia's Fireworks do quite well.

A common perception holds that Java- or Shockwave-based sites are popular-but in fact the majority of Web sites limit their complexity to animated GIFs. ImageReady makes animated GIF creation easy. An Animation palette holds the frames and lets you set their time delay, preview your animated GIF, and modify the disposal method (display or discard previous frames). Each frame is practically a complete ImageReady file in itself; it can contain multiple layers and share elements with other frames. The Tween function lets you move objects and modify their opacity over a customizable number of frames. Sadly, advanced animation features, such as the Venetian blind transition, are unavailable.

On the other hand, ImageReady facilitates batch processing of files with Droplets, AppleScript-like mini apps that contain presets you determine. For example, you can cre-

Batch Progress: Make GIF (Auto colors, Web) Resume Step: Save as GIF89a Stop

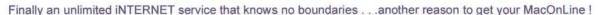
BATCH PROCESSING ALLOWS YOU to convert folders of images quickly to a specific format.

ate a Droplet that converts all files to 4-bit interlaced GIFs. Dragging a folder of files onto this Droplet launches ImageReady and processes the files. Each created GIF will even receive a new name if its default name would make it overwrite an existing file.

Despite its good points, ImageReady will likely frustrate Photoshop fans. Both programs share the PSD file type and preserve layers. You won't destroy a multiframe animation by opening the file in Photoshop, though you can only see and edit one frame. The applications can share plug-ins, but compatibility stops there. Photoshop and ImageReady allow you to reedit text, but you can't edit text across both applications. The same holds true for effects. Though ImageReady recognizes Photoshop's drop shadows, inner bevels, and so on, it won't let you modify them. Furthermore, ImageReady's text-entry dialog box is not WYSIWYG-you type text in your system font and have to guess how it might look in the font you've chosen. All of these are serious errors that severely diminish the sharing these two applications could do.

Though ImageReady has a solid user interface and some effective features, its lack of advanced features make it a tough sell. For \$100 more, you can step up to the much more powerful stand-alone Fireworks, and for \$100-plus less, you can use WebPainter 3. ImageReady may be OK for Photoshop fans, but advanced users will want more features than it provides.—Erik J. Barzeski

GOOD NEWS: Easy to use. Good tweening. Multimethod batch animation, BAD NEWS: Not well integrated



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Vpower G3/300

HARDWARE

COMPANY: Vimage

CONTACT: 877-484-6243 or 310-225-3979,

http://www.vimagestore.com

PRICE: \$980 (SRP)

REQUIREMENTS: Power Mac 7300, 7500, 7600, 8500, 8600, 9500, or 9600; System 7.5.2 or later (8.0 or later recommended)

SPECIFICATIONS: PowerPC 750 running at 300MHz, 1MB of backside cache

Power Mac 7600, with its 132MHz PowerPC 604. I've interleaved memory, added level 2 cache, and installed Connectix's Speed Doubler 8, yet I still suffer from performance envy, realizing that even the "low-end" iMac blows its doors off. Loath to scrap a perfectly good machine, I had only one hope for jumping back onto the cutting edge—a CPU upgrade such as Vimage's top-of-the-line

Vpower G3/300.

The Vpower G3/300 consists of a 300MHz PowerPC 750 on a daughtercard with 1MB of backside cache running at 150MHz (a 2:1 bus-tocache ratio). Attached to the face of the G3 is a small fan that cools the CPU but adds slightly to the ambient noise. Installation is a piece of cake, thanks to the illustrated documentation. You copy an extension and utility to the hard drive, then shut down. Put on the provided antistatic wrist strap, open the case, remove the L2 cache (which the Vpower's backside L2 cache supersedes), pop out the daughtercard, press the CUDA reset button on the motherboard, then drop in the new upgrade card and close everything up. The total time for installation is under five minutes, even for a novice.

After the hardware is in place, you can just sit back and enjoy the raw speed. The VpowerInfo utility confirms that the card is correctly installed (as if there were any doubt). In the Finder, windows open and

ON THE BLOCK, but its Vpower G3/300 is anything but wimpy.

close in the blink of an eye, menus drop down in a flash, and pop-up folders spring forth with newfound speed. Before the upgrade, the 7600/132 returned a respectable MacBench 4.0 processor score of 289 and a floating-point score of 310. With the Vpower G3/300, these scores jumped to 1,032 and 755 (an improvement of 257 and 144 percent, respectively).

Benchmarks are meaningless if they don't translate into a noticeable improvement in the real world, and the Vpower has nothing to fear here. Sorting a huge 4D database is only 10 percent faster with the upgrade, because 4D performs so much disk access. However, Equilibrium's DeBabelizer 3 launches in 6 seconds, versus 17 seconds without the upgrade. Processorintensive tasks such as scaling and rotating images, which used to take so long that a progress bar would appear, now finish almost instantaneously.

The Vpower G3/300 is competitively priced for similarly configured upgrades, but it's not for everyone. Only after honestly assessing your own personal need for speed can you determine whether it's worth a grand to almost triple your Mac's performance with an upgrade, or whether it's wiser to put that money toward a new Power Mac G3. The main drawback to upgrading is Apple's reluctance to certify the forthcoming Mac OS X on computers with G3 upgrades.—Owen W. Linzmayer

GOOD NEWS: Plug-and-play.
Significant speed increase.
Competitive price. Two-year
warranty. Toll-free tech support.
BAD NEWS: Fan makes noise. Fifteen percent
restocking fee. Mac OS X support uncertain.

VpowerInfo v1.1.0

CPU Type : PPC 750

CPU Clock : 302.2 MHz

BUS Clock : 46.50 MHz

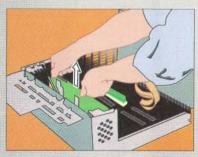
BacksideCache Size : IMB

BacksideCache Clock : 151.1 MHz

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ASIDE FROM THE EXTENSION that's necessary to implement the backside cache, Vpower G3/300's only software is a utility that displays the upgrade's specifications.

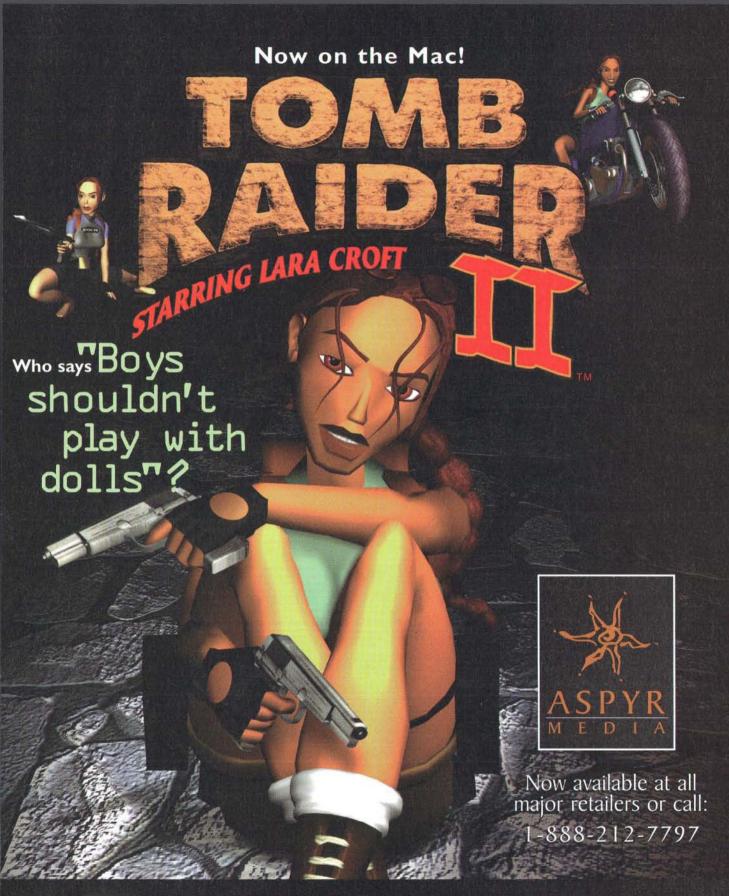
If I Only Had a (New) Brain



Discharge any static electricity by touching the chassis of your Mac's power supply. Wear the wrist strap (not shown) when handling the upgrade card and computer case. Gently pull out the L2 cache, then the CPU daughtercard, without touching the interconnect components.



Press the CUDA reset button on the motherboard. Take the Vpower G3/300 out of its antistatic sleeve and insert it gently but firmly into the daughtercard slot, with constant equal pressure. The L2 cache slot remains empty. Close up your Mac's case. Boot.















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power play

If you want to play Myth god, you gotta make a world.

Myth Maps in the Making

by Jeff Fridberg

In Mythed, choose

Objects from the

Extract Objects menu.

Select Tags.gor from

your Myth CD. Get the

file 58 King Of The Hill from Meshes. Save it by

double-clicking it. Now

extract Artsound.gor

and get the files 52 King

Of The Hill, 52 Over-

head Map, and 52

Pregame from Sprites

and Art. Save all of them

with their default names.

FIND ALL THE EDITORS mentioned in this article (minus the graphics program) on The Disc. This how-to explains the basics of making your own map for Myth. Making a textured map for Myth requires a lot of hard work, and although this tutorial will not turn you into an expert, it will get you started. It won't cover the more advanced topics, just the basics—but you will start to pick up the rest as you work through and complete your first project.

Save As Text... Geometry Objects Internal Objects Local Projectile Group ipgr Meah Effects Mesh Lightings 00 training may DOIM 03 diversion 173K 030 12 shedow of the mountain 142K 12% 10 desert 2 167K 1311 18 a long awaited party OB Begrade at night 63 Rest in Pleces 273K 65 Death in the Dire Marsh 167K 20m2 114K 23 trov 2

What you need:

Mythed MythTech Textura Bartok

HexEdit Adobe Photoshop

(or any other good graphics program)

Convert each file to Indexed Color when it is finished. Edit the palette for Overhead.bmp. Make the last three colors as follows: R=255

follows: R=255 G=255 B=0, R=255 G=0 B=255, R=0

Color Yable

Table: Custom

OK

Cancel

Load.

Save...

G=0 B=255. The total number of colors in Overhead.bmp must be 240 or less. Make the last 14 colors of Texture.bmp different red shades (the total number of colors can be 256).

Extract

Texture Map
Shadow Map
Elevation Map
Water Effects Map
Water Mask Map
Passability Map
Slope Map
Overhead Map
Pregame Graphic

Extract All



Open MythTech's folder. Place the file Thhi in the Mesh folder and the files Kiot, 52pr, and 52om in the .256 folder. Start MythTech. Open Thhi. Choose Extract All from the Extract menu.

Look inside the folder Graphics.out. Open these files with Photoshop; they are the ones you need to edit. Set the color mode to RGB. Now just paint on top of the old files. Don't edit Passability.bmp—we will do that later.





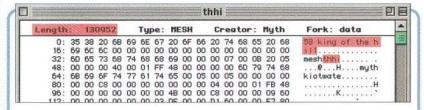
edited files inside the folder Graphics.in (in the MythTech folder). Start MythTech. Open your Mesh file. Choose Inject All from the Inject menu. When asked for scaling, choose 16.

Place all of the

Open the Mesh file with Textura. Choose Grid from the View menu. From the same menu, choose Grid Options, then

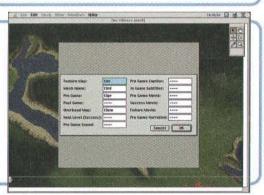
Passability. Edit by painting the triangles with the type of passability you want.





You edit the kind of units, unit placement, tree placement, type of trees, and so forth in Textura. Just click the item in question and a window appears with info about it, from which you can change the unit type and so on. If you want to move an item, drag and drop it to its new spot. To delete it, just press Delete.

In Textura, choose Mesh from the Mesh Info menu. Edit the map name, playable games, weather, and so on. Edit the tag IDs. Make sure you write down the IDs, since you have to rename your files using these. Rename all of your files (Thhi. Kiot, 52pr, and 52om) to the IDs you chose in Textura.



Open the files with HexEdit. Make sure you have backups of those files. At the top of the window you see information about the file, such as Length, Fork, and Creator. Check what number the Length is, because when you've changed the code it must be the same length as before. The window is split into one code area and one text area. At the beginning of the text area, you see a lot of periods (.) and a name for the tag-for example, 52 Overhead



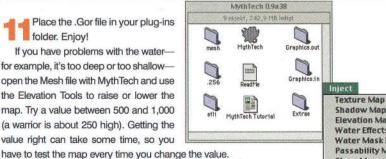
Map. A bit later in the text (after the periods), you see something like 25652om (this part always begins with 256 or Mesh and is followed by a four-letter code). Change the name and the code to the name and code of the file you specified in Textura.

Start Bartok. Drag your Mesh file, the three .256 files, and the Stli file (which has now been made inside the Stli folder) onto it. If you get a dialog box saying they are an unrecognized format (displayed in red), don't worry-it usually works anyway. Choose Build .Gor.

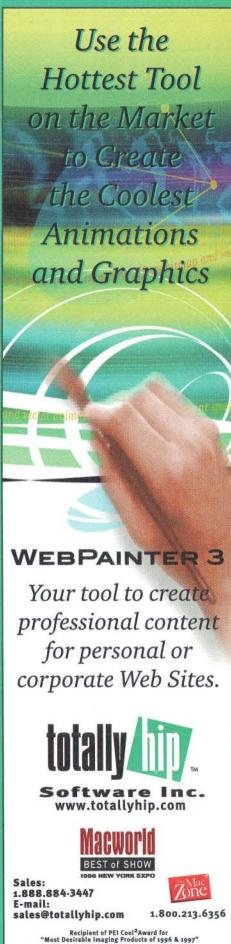


Place the .Gor file in your plug-ins folder. Enjoy!

If you have problems with the waterfor example, it's too deep or too shallowopen the Mesh file with MythTech and use the Elevation Tools to raise or lower the map. Try a value between 500 and 1,000 (a warrior is about 250 high). Getting the value right can take some time, so you



Elevation Map Water Effects Map Water Mask Map Passability Map Slope Map Overhead Man Pregame Graphic





We're generating games and multiplying monitors—what are you doing?

Build a Shoot-'Em-Up Game in Flash 3

I'M LOU! MY BROOKLYN BOMBER GAME IS LOADS OF FUN AND EASY TO PLAY! YA SEE, THERE'S LOTS OF STRANGE CHARACTERS HANGING AROUND IN THE ALLEY BEHIND MY DELI, YOUR MISSION IS TO PROTECT MY DELI AND MY WORLD-FAMOUS PASTRAMI SA WICHES FROM ANY ENEMIES WHO SHOW THEIR UGLY MUG!

YOU'LL BE ARMED WITH FAMOUS 5-BRIDGER HOT MUSTARD. ANYTIME YOU SEE SOMEBODY, GIVE 'EM A SQUIRT OF THE SAUCE TO END 'EM RUNNING FOR THE EAST RIVER! EACH TIME YOU GET A DIRECT

HIT, I'LL GIVE YA A POINT TWO. WATCH IT, THOUGH. YOU'VE ONLY GOT 60 SECONDS BY THE WAY, DON'T SHOOT ME, OR I'LL TAKE SOME OF YOUR POINTS AWAY

SCORE 265

FIND A DEMO of Flash 3 on The Disc.

IDEAS ON THE WEB at http://www. smashing ideas.com/ funsmash .htm.

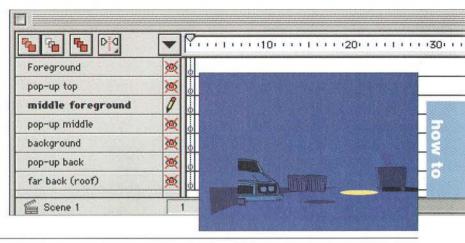
lash 3 is cool, really cool. With this release, Macromedia hasn't just stayed one step ahead of the competition—it has defined a whole application genre before its competitors (read Microsoft and Adobe) even managed to release a viable product. The new features all dedicated Flashophiles can point to with excitement are the vector alpha channel, shape morphing, mask layers, added interactivity, better delivery mechanisms, and the ability to make stand-alone projectors. The most important Flash features we use at Smashing Ideas are the timeline, independent movie clips, and the Tell Target Action command.

Together, these features let nonprogrammers do stuff on the Web that previously required painful hours of code writing or (even worse) having to explain what you wanted in words a programmer could understand now that's tough. Unlike Director, Flash 3 doesn't involve a programming language, so simple animators like me can now do something we've always wanted to do-make interactive cartoons and games.

We wanted to develop a point-and-shoot game about Lou Romano, Brooklyn deli owner and star of Lou's Deli Dayze, a Smashing Ideas Animation cartoon. So how'd we make it happen? Well, against our better judgment, we'll tell ya. But the following are trade secrets, and we expect every MacAddict reader to have signed the nondisclosure agreement. If you haven't, stop reading now-or at least send us licensing royalties when you use our game engine to create cool Flash 3 games.

Setting Up the Canvas

The first thing we do is create a new movie titled Lou. We start adding layers to the scene by selecting Layer from the Insert menu. We need to make several layers to allow pop-up characters to come out from behind different objects in the alley. The bottom layer contains the far background of a city. The next layer up holds character pop-ups, and the next contains the far wall and the objects that characters pop out from behind. After that comes a layer for more characters, then a layer for cars and garbage cans other characters hide behind, then a layer for characters, and so on, with the topmost layer containing the side walls and the objects in the playing area's foreground.



Import Art

We, of course, already have most of our characters and backgrounds drawn in Flash, having made four different Lou's Deli Dayze cartoons in the program. We open those Flash files as libraries (selecting Open As Library from the File menu), then drag them into the Lou Flash movie. Those of you following along at home can simply create your own characters.



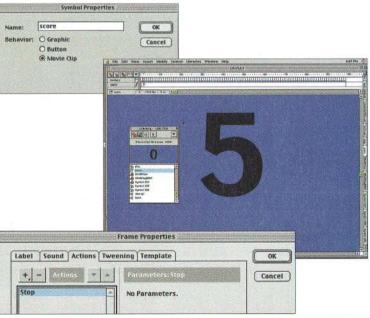


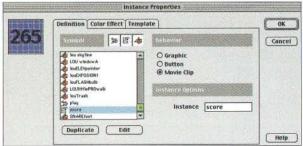
Keeping Score

Before creating the pop-up character targets, we add a scoring mechanism. We make the Score movie clip—the numeric score display you see in the lower right corner of the game—by selecting Create Symbol from the Insert menu. All the various elements in the game except the landscape are symbols assembled via Create Symbol. In the case of the scoring mechanism, we name the symbol Score, then click the Movie Clip button under Behavior. We then click the Edit button to edit the symbol. You can go into symbol-editing mode at any time by bringing up the Symbol library (choose Library from the Window menu) and double-clicking a symbol.

In order to create the Score movie clip, we add a right-justified text box with a zero in it to the first frame. We then insert more frames (choose Keyframe from the Insert menu), and increase the number in each frame by our chosen point increment—in this case, 5. Once the score is high enough for our game, we put a stop action on the first frame by double-clicking that frame in the timeline and selecting the Actions tab in the resulting dialog box. We click the plus (+) menu and choose Stop.

We then switch back to the movie-editing area (Edit Movie from the Edit menu) and drag and drop the score symbol into place on the topmost layer—making sure the desired layer is currently selected in the timeline—so the score will show above everything. We then double-click the just-placed score object to open its Instance Properties dialog box, and give the clip an instance name of Score. We do this so that other movie clips and buttons can interact with it.





Layer 1

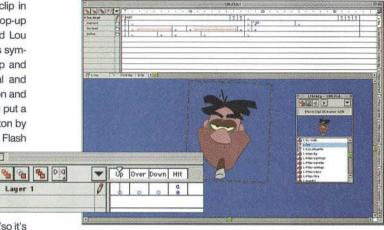
Building Targets

Once we have the background and scoring clip in place, we need targets. We start the first pop-up character, Lou, by making a movie clip symbol called Lou (choose Create Symbol from the Insert menu). For this symbol, we make an animation of Lou's head sticking up and then going back down. (Consult your Flash manual and native tutorials to learn about making a simple animation and tweening.) To make Lou's head a shootable target, we put a button behind it on a separate layer. We create the button by making a new symbol and choosing Button. By design, Flash

buttons have four frames. The first, Up, shows what the button looks like normally; the second, Over, shows what it looks like on mouse-over; the third, Down, shows what it looks like when pressed; and the fourth, Hit, defines the area you can press for a

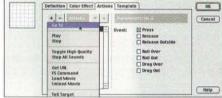
button. Our button has nothing in the first three frames (so it's invisible), and a filled-in oval in the Hit frame.

We then go back to the Lou symbol in edit mode. We drag and drop the button onto its layer, positioning it behind Lou's head, then add the necessary action to the button by double-clicking the button symbol in the Lou work area to pull up the button's Instance Properties window. Here we click on the Actions tab, then choose On (Press) from the plus menu. With On (Press) highlighted, we select the Go To action from the plus menu, then choose Go To And Stop in the script area. We choose Label and type in Hit in the Name field, then choose Go To And Play at the bottom of this dialog box. When a player clicks the button behind Lou's head, Flash looks for and plays the clip with a Hit label attached (which we'll make in the next step).



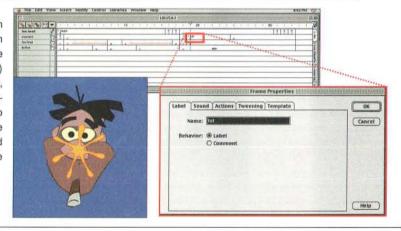






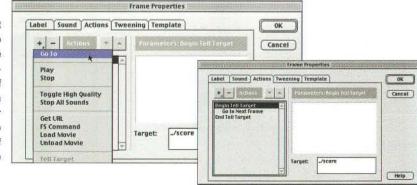
The Hit

We make the sequence that plays when Lou gets hit-the mustard splash-within the Lou movie clip. We add a blank keyframe (choose Blank Keyframes from the Insert menu) after finishing the pop-up animation in the timeline. then build the animated Hit sequence into the timeline after this blank keyframe. We add a Hit label to the beginning frame of this mustard-splat sequence (double-click the first frame of the mustard sequence, select the Label tab, and type Hit into the Name field).

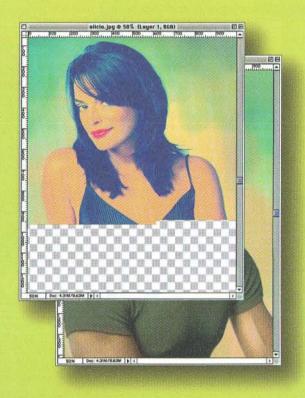


Frame Triggers

Now that we've finished the animated part of the pop-up character target, we need to enable it to interact with the rest of the game. We start at the second part of the movie clip, the hit animation of the mustard squirt. On the last couple of frames of this animation, we add one frame action to tell the score to update, a second to trigger another clip to run, and a third to stop this clip. To get the score to advance, we double-click one of the last frames in the splat section to bring up the



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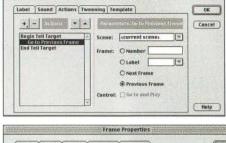


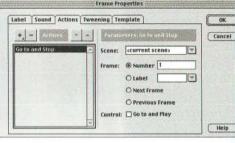
Frame Properties dialog box. In this box, under the Actions tab, we add a Tell Target action via the plus menu. In the Begin Tell Target window, we select the Score clip as the target by inserting a double period and slash (../), immediately followed by the target clip's instance name. In this case the target reads ../score. The periods and slashes have to do with how Flash tracks file hierarchies.

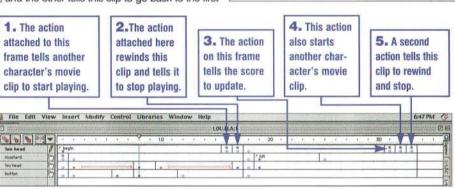
With Begin Tell Target still highlighted, we select Go To from the plus menu, then select the Previous Frame option. Because this is Lou, the player gets a penalty for hitting him. When this frame plays—Lou getting hit—Flash tells the Score movie clip to go back one frame—dropping the score 5 points. For other characters we do the same thing, but tell the score clip to advance one frame—upping the score 5 points. It's not the most elegant solution to scoring, and real programming wizards won't approve, but it works. We also make frame actions on the last frame of the clip that start another pop-up character movie clip. Again, we use the Tell Target action, which tells the next character to advance a frame. We also put in a frame action telling this clip to go to its first frame and stop, thus rewinding the clip so another character's final frame action will trigger it.

Of course, some people will be too slow to hit the character. For them, the beginning part of the animation—in which Lou's head pops up and down—also needs frame actions just before the blank keyframe signifying the start of the hit sequence. One of these frame actions plays the next pop-up character, and the other tells this clip to go back to the first

frame and stop. If the character gets hit, the score changes, but either way a new movie clip begins playing and this clip rewinds. This is the general model for all the characters. Each character triggers another, in an endless loop. It's important to note at this point that additional characters need a blank keyframe as their very first frames, with a stop action attached, to prevent all the clips from playing at once...

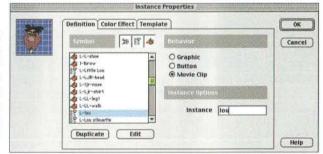






Character and Landscape

We need to add the pop-up character to the playing area and make it work. We switch back to the Flash movie from the symbol-editing area (choose Edit Movie from the Edit menu, or press Command-E). We open the Library (choose Library from the Window menu, or press Command-L) and drag and drop the Lou movie clip into the correct pop-up layer. We then double-click the Lou movie clip to bring up the Instance Properties dialog box. We give the movie clip an instance name of Lou so other characters' frame actions can recognize it.



More Targets

Using the same pop-up character format, we make more targets with other artwork. To save time, we double-click the Lou symbol in the main work area to open its Instance Property dialog box, then select Duplicate. We name the copy and take it into Edit mode. We simply put a new head and body on the character, change the target names in the

frame actions to trigger a different pop-up movie clip, and make the counter move forward instead of backward (since it's no longer Lou, we add points instead of taking them away). We then add a blank keyframe as the first frame of each target, with a stop action attached, as noted in step 6. To create a loop, we have the last character we make play Lou again when it finishes.

This is actually a simplified way of making the characters come up. For the final version of Brooklyn Bomber, we develop a Randomizer counter movie clip, which each pop-up clip triggers when it finishes playing. This Randomizer then triggers another randomly selected character clip. If you get good enough with Flash, you may find your own way of making such a Randomizer clip, but for now stick to the simpler method.

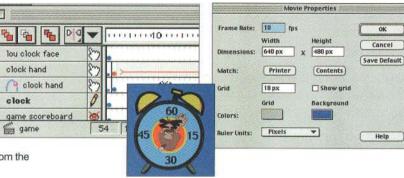
L-LL-legt	Bronchista Company Control	
C L-los	Instance lou	
(Duplicate) Edit h		Help

Symbol Name:	L-lou copy	OK
		Cance

Time Limit Once the game is working, we need to put the 60-second limit on it. The

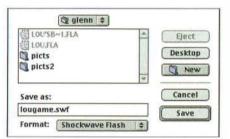
to put the 60-second limit on it. The Lou clock in the lower-left corner times the game. This clock is a 600-frame movie clip. Since this Flash movie is set to run at 10 fps (choose Movie from the Modify menu to set this), the gamer gets 60 seconds to play. On the last frame, we put in frame actions telling each of the characters (via Tell Target) to stop.

We then test our movie by choosing Test Movie from the Control menu.



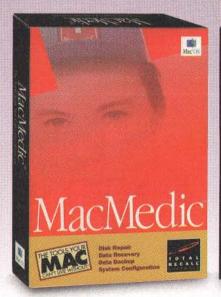
Export We finish t

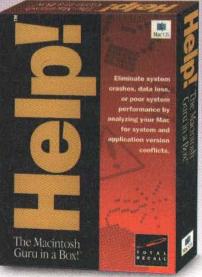
We finish the whole thing off by exporting the game as a Flash movie (.swf). To do so, we open the File menu and choose Export Movie. And there you have it, one way to make the basic guts of a shoot-'em-up arcade game in Flash 3, even if you have no real programming skills—just ideas, hard work, and creativity. Use your abilities wisely, and you'll be blasting your own aliens and bad guys in no time.



Glenn Thomas, the director of Smashing Ideas Animation, is a Flash aficionado: He challenges you to drop by Smashing Ideas at http://www.smashingideas.com/tunsmash.htm to play Lou's Brooklyn Bomber and see if you can keep people from lurking around the deli Smashing Ideas will be releasing more big, bright, bizarre Flash 3 games soon.

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Make Your Mac a Two-Headed Monster

f you've never had more than one monitor hooked up to your Mac at a time, you just don't know what you're missing. We're not talking about video mirroring, which allows the newest PowerBook models to display an image on the built-in LCD and an external monitor simultaneously. We mean the natural ability of almost all desktop Macs to drive multiple monitors as one really long desktop.

The process of adding a second monitor is easy and inexpensive, but that's not to say everything will always go off without a hitch. If you're contemplating adding another monitor to your Mac, or even if you're already reaping the benefits of an extra screen, here are some tips for making the most of a multimonitor Mac.

<click here>

Each monitor requires its own video source. If you want to add another monitor to your Mac, you will need to buy a graphics card. Theoretically, you can add as lustrations by Chris Vanderhoof

many monitors as you have empty slots for video cards. Graphics cards plug into either a NuBus, processor-direct, or PCI slot on the motherboard. If you are unsure what type your Mac uses, consult the technical documentation that came with your computer. As all new Macs use PCI slots for expansion, PCI graphics cards are easiest to locate, but

Get the Card

cards are impossible to find. Shreve Systems (800-227-3971 or 318-424-7987, http://www .shrevesystems.com) stocks a wide array of hard-to-find items for discontinued Macs and

that's not to say the older NuBus and PDS

PCI cards for current models.

Making Connections

Adding another monitor shows off the Mac's true plug-and-play capabilities. Just pop the graphics card into an empty slot, plug in the new monitor, and turn everything on. In most cases, the Mac automatically senses the presence of the extra screen. All you need to do is open the Monitors & Sound control panel to configure the new setup (vintage Macs running older versions of the system software should use the Monitors or Sound & Displays control panel, [continued on page 96] whichever is present).



[continued from page 94]

Tweaking the Settings
In the Monitors & Sound control panel (or in Sound & Displays), click the Monitor icon at the top if it's not already selected. For each monitor attached to your computer, you can set Color Depth, Resolution, and Gamma independently. These settings are the same ones you have with a single monitor, so they should already be familiar. When you get all of the settings as you want them, click the Arrange icon at the top of the control panel.

Arranging the Real Estate

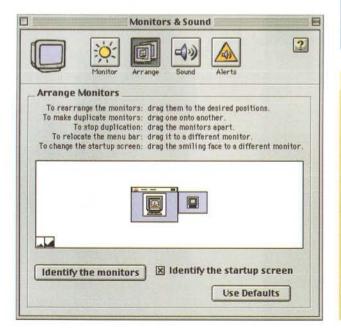
The Arrange window offers many different options, but the first thing you should do is drag the pictures of the monitors around until they

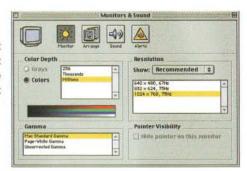
mimic the relative physical configuration of the real monitors on your desk. For example, if you have a large monitor directly in front of your keyboard and a small monitor off to the right side, rearrange the pictures to match. It's not important to get the arrangement exactly right, but you should try to make it close. How the monitor icons align determines how objects move from one screen to another. Ideally, the alignment should be so precise that if a window straddles two monitors, the top edge is level in the real world. If part of the window appears higher or lower on one screen, keep fiddling with the arrangement. The only requirement is that the monitor icons touch on one edge so the cursor can pass from one screen to another. You can drag one monitor onto the other if you want them to display the same image (video mirroring).

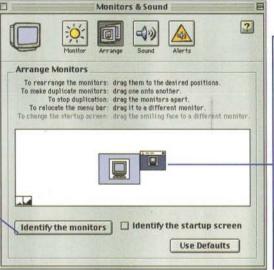
IF YOU'RE NOT SURE WHICH MONITOR IS WHICH, click the Identify The Monitors button; large numbers pop up momentarily onscreen to aid in recognition.

Who Has Control?

Now that you've aligned the monitors properly, you need to designate the startup screen and the location of the menu bar. Select the Identify The Startup Screen check box to see a little smiley face on one of the monitor icons. Drag it to whichever monitor you want to display the Welcome To Mac OS greeting and the march of icons at startup. To designate the main monitor, simply drag the little menu bar to the appropriate screen within the control panel. The disk and Trash icons appear on the monitor with the menu bar, and by default most applications open new windows on this monitor.







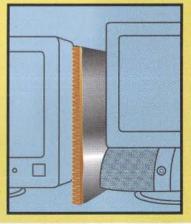
BY ARRANGING
THE SCREEN
with the menu
bar just a bit
higher than the
adjacent monitor, as shown
here, you give
the cursor a
corner to catch
on in case you
overshoot your
intended target,
such as the
Apple menu.

Get Carded

bare-bones graphics card capable of displaying 256 colors on most monitors will set you back just \$100 to \$200 (even less if you buy it used). If you want to display millions of colors on a 17-inch or larger monitor, you may need to spend a little more for a card with more memory and accelerated graphics, such as one from ATI Technologies (http://www.atitech.com) or IXMicro (http://www.ixmicro.com). These cards range in price from \$230 to \$500. When ordering your card, be sure to specify what type of monitor you'll be using to ensure that the card works and that you get the appropriate cable.

Flicker Foiled Again

f you set monitors too close to one another physically, their images may begin to flicker or distort in annoying ways due to magnetic interference. The simplest solution is to separate the battling monitors until the interference disappears. You can also experiment with reversing the monitors' orientation or with placing a piece of foil-wrapped cardboard between them.



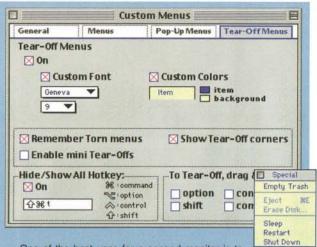
Wide-Screen Software

orking with multiple monitors is like using a single screen, except that you've got more room to roam. This can be a curse, though, without the right software to reduce all your mouse rolling. Bump up Mouse Tracking to Fast in the Mouse control panel so the cursor moves farther for every inch you roll the mouse. If your forearm still gets a workout, consider a trackball such as the Kensington Turbo Mouse 5.0 (http://www.kensington.com). Its large ball rolls smoothly in the palm, and it has four user-definable buttons placed where your fingers naturally fall. A flick of a finger sends the cursor flying from one edge of the screen to the other.

No matter what size screen you use, you need Snap-To from Eden Sherry. This inexpensive shareware gem automatically places the cursor over the default button in dialog and alert boxes.

Another essential utility is Action Files from Power On (see

Reviews, Jul/98, p58). This commercial program adds many useful features to the standard Snap-To Open and Save dialog boxes. Of ww.edenware.com particular importance to big-Snap-To automatically moves the cursor to screen users is the ability to the default button when a dialog box appears. Use the options below to configure it, and expand these boxes as much as please pay the \$5 fee if you use it. you like, greatly reducing the Purchase Snap-To Online amount of scrolling you do. For a shareware option, see James ☑ Use Snap-To in Open Dialogs Walker's Dialog View at http:// ₩ Use Snap-To in Save Dialogs Snap Cursor Back members.aol.com/jwwalker/ "Glide" Cursor index.html.



One of the best uses for a second monitor is to contain all the palettes of complex programs such as Adobe PageMaker and Photoshop, rather than have them clutter the main screen. You can also use that space to hold tear-off menus. With Marc Moini's shareware control panel Custom Menus (http://www.marcmoini.com), you can tear almost any menu off the menu bar and leave it floating above all the others.

Jan Bruyndonckx's WindowWarp is an indispensable shareware extension for multiple monitors. By default, applications open documents on the main monitor, but if that's not what you want, you have to drag the window to the other screen and resize it. With WindowWarp, just Option-click a window's zoom box, and the win-



your questions

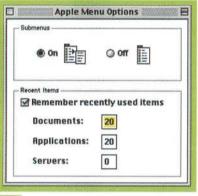
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FIND SCROLLING and DoubleScroll 2.2 on The Disc.

I have a question about how the Recent Documents feature works on my Mac. Why do some documents appear in the Recent Documents submenu under the Apple menu while others do not? For example, earlier this morning I created a FileMaker Pro database and printed out a report. Later I needed to access the document, so I thought that by going to the Apple menu and choosing Recent Documents, I would be able to reopen the document. However, it wasn't in the Recent Documents submenu. I opened the Apple Menu Options control panel and verified that I have it set to show the 20 most recently used documents. Restarting the computer doesn't seem to make a difference, either. What do you think?

A If enabled, the Apple Menu Options control panel automatically creates aliases of





recently used items and places them in the appropriate folders inside the Apple Menu Items folder, which resides in the System Folder. If you double-click a document in the Finder, its creator application launches and opens it, causing an alias of the document to appear in the Recent Documents submenu. This also happens if you choose Open from the File menu in an application and select a document; the same goes for saving a document from within an application. Certain applications, however-such as FileMaker Prodon't use the standard Open and Save dialog boxes, so Apple Menu Options is unable to track documents these applications create. If that's a real problem for you, consider buying Action Files from Power On Software (800-344-9160 or 330-735-3116, http://www .actionutilities.com). Action Files adds tons of useful modifications to Open and Save dialog boxes, and makes recently used documents available from a handy File submenu within most applications (see Reviews, Jul/98, p58).

I have a friend who owns a Power Mac 7200. He's on a budget and is looking for free email, similar to Juno's (http://www.juno.com), but that works on a Mac. Can you recommend anything?

A number of services available on the Web can provide you with a free email account that you can access with any browser, from any computer, anywhere in the world, provided you can establish an Internet connection. MacAddict provides a free Web-based email service via Imagine Mail (http://www.imaginemail.com). You can even get cool domain names like @buy-a-mac.com and @Macaddict.com. Juno is a little different in that it's an advertising-supported email service that uses a proprietary program instead of a browser. The benefit is that you don't need an Internet account to access your email on Juno. The downside is that there's currently no Macintosh version of the required software. I don't know if or when Juno plans to support the Mac, nor am I aware of any similar services available for the Mac. However, America Online has been saturation-bombing the country with disks offering trial subscriptions to its service. If your friend can avoid the temptation to jump on the Net, it's certainly possible to stretch the 50 free hours on AOL into an almost free email service.

I have 104MB of memory installed in my Mac. I turned on virtual memory in the Memory control panel and set it to 1MB above the amount of real memory, giving me 105MB total. I noticed that doing so creates a 105MB invisible file called VM Storage on my hard drive. Why is this invisible file so large, instead of being only 1MB in size?

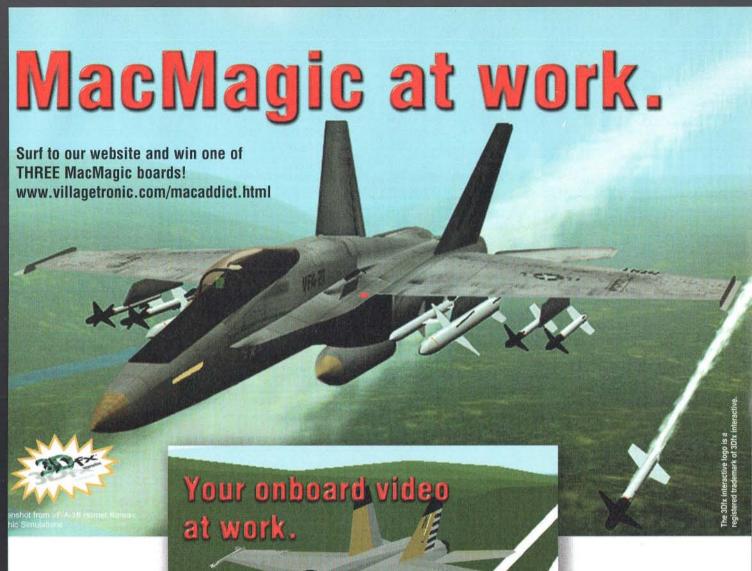
As unsatisfying as this answer may be, that's just the way it is. When you turn on virtual memory, the Mac sets aside a portion of your hard disk to act as a swap file, which it uses to shuttle items between your disk and memory. This swap file's size equals the total size set in the Memory control panel. Turning off virtual memory deletes the VM Storage file, and you regain the disk space for saving other files. Virtual memory is OK if you absolutely need to run several large applications simultaneously every once in a while, but swapping data in and out of the storage file decreases overall performance. I always recommend buying real memory instead of relying on virtual memory. Real memory is cheap, faster, and will never cause compatibility problems the way virtual memory sometimes does.

I am a subscriber to AT&T's WorldNet Service. It recently changed its service plan from all-you-can-eat access to 150 hours per month. How can I get the PPP control panel to display the time remaining on my account correctly?

Unfortunately, this isn't something over which you have control. The remaining time displayed at the bottom of the PPP control [continued on page 100]

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[continued from page 98]

panel is an optional feature that your ISP's server can use to notify dial-in clients such as yourself how much free time is left. If your ISP



DON'T NECESSARILY BELIEVE the PPP control panel if it says you have unlimited time remaining.

fails to implement this feature, the remaining time appears as unlimited, even though you are using up some of your finite monthly allowance every time you connect.

You guys are my last hope. I plan on networking a Power Mac 7200/75 and a brandspankin'-new Power Mac G3/233 tower. The G3 ships with a 56-kbps internal modem. How can I set up the two computers to use that single modem for Internet access?

Create a simple AppleTalk network by running an Ethernet crossover cable between both computers, then install SurfDoubler from Vicom Technology (800-818-4266 or 650-691-9520, http://www.vicomtech.com). This \$99 program allows you to share one computer's Internet connection with one other computer on a network, so both can be online at the same time. I've tested the product and it works as advertised, but keep in mind that the two computers share the total bandwidth. If two users max out the single 56kbps modem by performing simultaneous downloads of large files, each Mac will achieve only a 28-kbps rate. Also, both computers need to be networked and turned on for SurfDoubler to work. If you typically use one computer at a time, you may want to invest a little more money and buy a second 56-kbps modem for the Power Mac 7200.

Is there a shareware program that controls the speed of the scroll bars? When viewing a word processing document on my new Power Mac G3, I find the speed much too fast; one tap in the scroll bar sends me zipping past

several pages of the open document.

Ah, if only the whole world had the problem of too much power. Luckily for you, several programs can slow down scrolling to an acceptable rate. If all you want to do is adjust the scroll and acceleration rates, pop a copy of Apple's Scrolling into your Control Panels folder (it's on The Disc), but if you want those features and more, consider using Edward Voas's shareware program DoubleScroll (http://www.amargosa.com/doublescroll .html; also on The Disc). This control panel



SLOW A SPEEDY SCROLL BAR on a wicked fast G3 using this simple Scrolling control panel.

throttles the scroll rate, plus it puts up and down arrows at the ends of every scroll bar and provides live scrolling of the document window's contents.

I have a question regarding bookmarks: How can I save them as a file I can put on my self-promotional CD? I would like potential employers to be able to access my Web site directly from the CD.

If you are using Netscape Navigator, open the System Folder, then the Preference folder, then the Netscape folder. Inside you should find a file called Bookmarks.html. Microsoft Internet Explorer users should look inside the Explorer folder for a file called Favorites.html. These are both text files that contain the URLs of all your bookmarked sites. Open them with any browser—the links will work just fine.

Many times I want to copy files from one folder to another, but I don't want to replace existing files if they're the same as the files I'm copying. What I find myself doing is opening both folders and comparing them, file by file, so as to drag over only unique, new files. This is very tedious and annoying. Is there a way to copy only those files that are not duplicates?

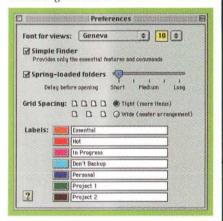
Even Mac OS 8 isn't smart enough to copy only those files that are truly different, but Connectix's Speed Doubler 8 offers this feature (800-950-5880, http://www.connectix.com). If you own a Power Mac and don't yet have Speed Doubler 8 installed, you're wasting potential performance, because this control panel offers much better emulation for older, non-PowerPC native software. Even 680x0 Mac users may want to consider buying Speed Doubler to take advantage of its other features, such as Windows-like keyboard navigation of menus, hot-key shortcuts, scheduled copying, and Smart Replace, which doesn't bother copying files if the source and destination are identical.

Recently I installed Mac OS 8, and now I cannot find the Get Info or Make Alias commands in the File menu. Help! Did I not install properly, or what?

Unless you somehow managed to seriously screw up a brainless installation process, my guess is that after putting Mac OS 8 on your computer, you started diddling around with its new features, not really knowing what they do. Choose Preferences from the Edit menu, and

see if the Simple Finder check box is selected. If so, the Finder's menus show only those commands deemed essential to the Mac's basic operation, which would explain the missing Get Info and





WHAT'S WITH THE WIMPY File menu? That's what you get with Simple Finder selected in the Preferences window.

Make Alias commands. To restore them, deselect this check box and close the Preferences window.

Owen W. Linzmayer (askus@macaddict.com; http://www.netcom.com/~owenink) is a San Francisco-based freelance writer and the author of *The Mac Bathroom Reader*. Please submit technical questions or helpful tips directly via email or c/o MacAddict, 150 North Hill Dr., Suite 40, Brisbane, CA 94005.



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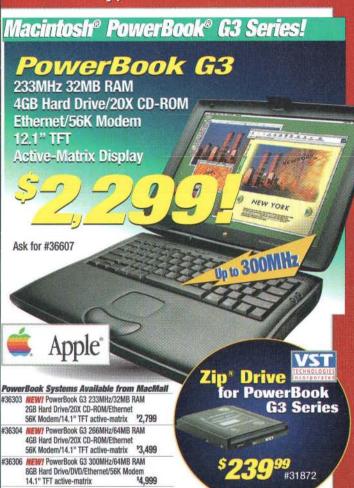
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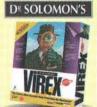
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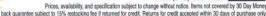
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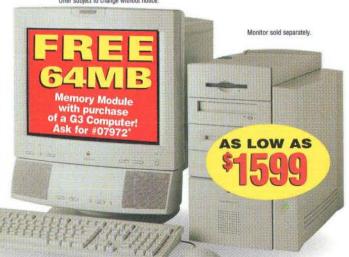


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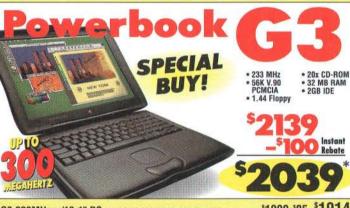
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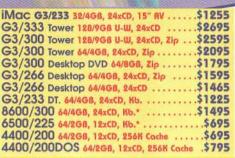
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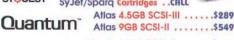
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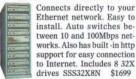
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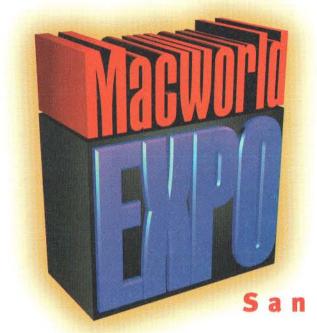
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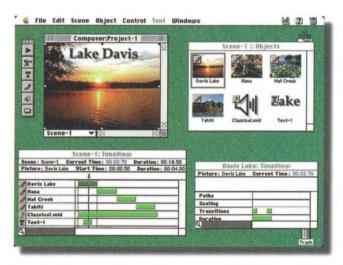
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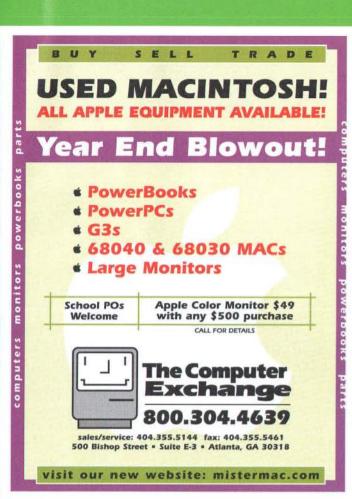
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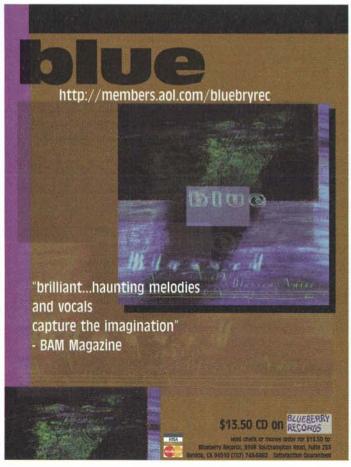
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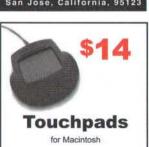








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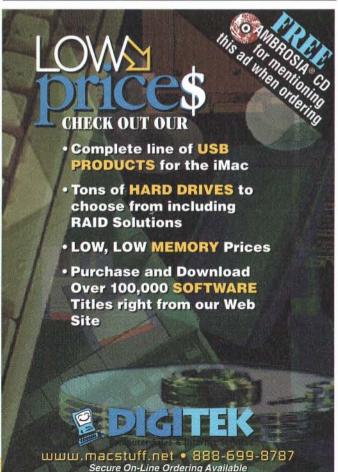
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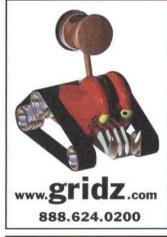
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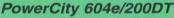
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Developing a Sense of Humor

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don't go postal they just go to the thesaurus to get the last word.



What Bill Gates Wants for Christmas EVERYTHING!

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MACADDICT CORRECTIONS

- In the November how-to, "101 Uses for Your Old, Outdated Floppy Discs," we forgot to mention backing up data and transferring files. Duh. Our mistake.
- In last month's feature titled "The 500 Million Reasons Apple's Back in Black," we forgot to mention that Judy A. Zimmerman, a hardware engineer in the very back cube on the second floor of Building Four, brings her own toilet paper to work, thereby shaving thousands of dollars off the company's burgeoning toiletry costs. We apologize, Judy, for this omission—keep up the great work.
- The cover feature last month was supposed to be a collection of high-lights from the Kenneth Starr report, complete with the Clinton confession video on The Disc, but we ran something on computers instead. We are sorry for the mixup.
- Previously, letters that we've included in our brilliantly titled *Letters* section have focused on serious debates concerning dots, oddly spelled reader names, and the sexual orientation of our mascot. We apologize for the somber nature of these discussions and vow to print only funny, strange, or totally irrelevant missives in future issues.
- In last month's exclusive interview with the founder and chairman of Quark, titled "Tim Gill—Interview with a Madman," we unfairly characterized his company as "the innovative software developer responsible for the page layout program QuarkXPress." In an effort to be more objective, we should have referred to the company as "a penny-pinching group of egomaniacs desperately clinging to one product upon which the entire future of the company is based." Please accept our regrets.
- In last month's annual feature on the "50 Best and Worst Places to Work in Silicon Valley," we forgot to mention Apple Computer, Netscape Communications, the Gap, Adobe Systems, Pixar, various high-traffic Web sites, AT&T, Umax, San Jose International Airport, Burger King, and a few startups on the verge of going public. Oops.

Classic Comedy Q. How many

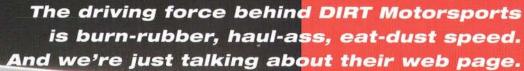
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Thanks to reader Tim Peterson for reminding us of this timeless gut-bueter.

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